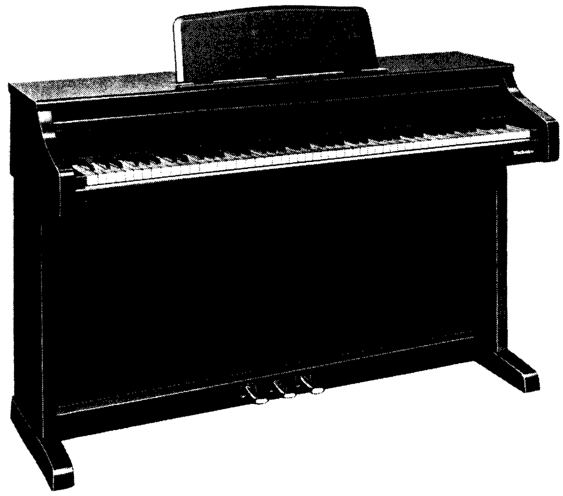
ORDER NO. EMID951578
A4

Service Manual

PCM Digital Piano

SX-PX205/205M

(M), (MC), (XM), (EN), (EH), (EF), (EZ), (EW), (EA),
(EP), (EK), (XL), (XR), (XS), (XD), (XT), (X), (XP)



AREAS

(M): U.S.A.
(MC): Canada
(XM): Mexico
(EN): Norway, Sweden, Denmark, Finland
(EH): Holland, Belgium
(EF): France, Italy
(EZ): Germany
(EW): Switzerland
(EA): Austria
(EP): Spain, Portugal, Greece
(EK): the United Kingdom
(XL): New Zealand
(XR): Australia
(XS): Malaysia, Singapore, South Africa
(XD): Saudi Arabia, Hong Kong, Kuwait
(XT): Taiwan
(X): Thailand, Indonesia, Iran, U.A.E., Panama, Argentina, Peru, Brasil
(XP): Philippines

⚠ **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

■ Specifications

CABINET	SX-PX205: BLACK, SX-PX205M: WALNUT
KEYBOARD	88 KEYS (MAX. POLYPHONIC 32 NOTES)
SOUNDS	GRAND PIANO, ROCK PIANO, VIBES, STRINGS, E PIANO 1, E PIANO 2, HARPSI, PIPE ORGAN
PEDAL	SOFT, SOSTENUTO, SUSTAIN
BRILLIANCE	MELLOW, BRIGHT (5 STEPS)
DIGITAL EFFECT	○
DIGITAL REVERB	○ (ROOM, STAGE, HALL, CONCERT)
TOUCH SENSITIVITY	LIGHT, NORMAL, HEAVY
TRANSPOSE	G–C–F#
TUNING	427.3–440.0–453.0 Hz
METRONOME	○ (TIME SIGNATURE: OFF, 2/4, 3/4, 4/4, 5/4, 6/8)
SEQUENCER	TRACK (1, 2), STORAGE CAPACITY: APPROX. 4000 NOTES, RECORDING MODE: REAL TIME
DEMO	○
MIDI	MULTI TIMBRE, LOCAL CONTROL, OMNI ON, PROGRAM CHANGE, PEDAL, EFFECT, TRANSPOSE
MODE SET	PIANO TUNING, MINIMUM RANGE
OTHERS	POWER SWITCH, MAIN VOLUME, MIDI TERMINALS (IN, OUT, THRU), PEDAL IN, AUX IN (R/R+L, L), LINE OUT (R/R+L, L), PHONES ×2, AC IN, INITIAL KEY
OUTPUT	40W × 2
SPEAKERS	14 cm × 2, 6.5 cm × 2

Technics

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POWER REQUIREMENT	180W 110W (NORTH AMERICA AND MEXICO)
	AC 120/220/240 V 50/60 Hz AC 120 V 60Hz (NORTH AMERICA AND MEXICO) AC 230 V 50/60Hz (NEW ZEALAND) AC 230-240 V 50/60Hz (EUROPE)
DIMENTIONS (W × H × D)	138.1 cm × 106.2 cm × 50.7 cm (54-3/8" × 41-13/16" × 19-31/32")
NET WEIGHT	60 Kg (132.3 lbs.)
ACCESSORIES	AC CORD, STAND

*Specifications are subject to change without notice for further improvement.

WARNING

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be sure to follow the safety guidelines below.

1. At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner's Manual.
2. Parts which have a ⚠ mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use only the specified parts.
3. Use the specified types for internal wiring (double-insulated wiring, etc.).
4. When replacing parts on the AC primary side (power transformer, electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.
5. Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).
6. When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.
7. When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.
8. Spacing
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (Between the primary circuit and the chassis: at least 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least 6.5 mm.).

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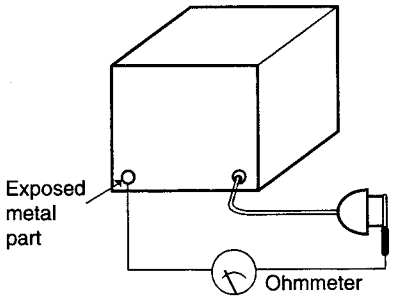
SAFETY PRECAUTION

● Safety Precaution

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only the manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc..
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

● Insulation Resistance Test

1. Unplug the power cord and short the prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc..Measurements should range from 4 MΩ to infinity for all exposed parts.

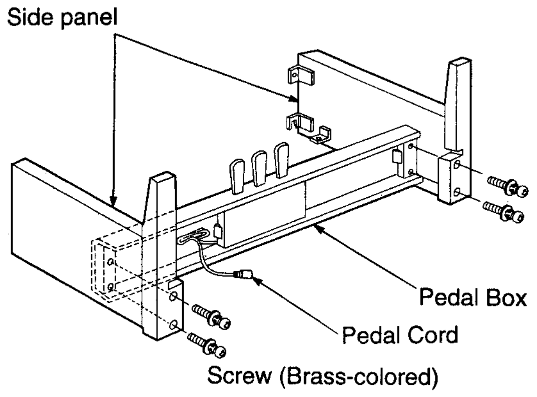


Resistance = 4MΩ to ∞

HOW TO ASSEMBLE THE PIANO

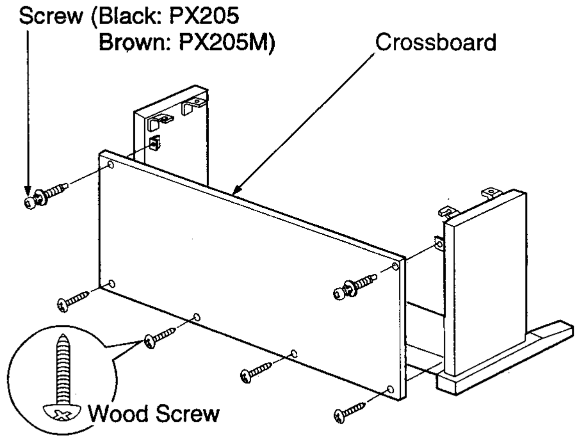
To prevent the piano unit from falling off the stand, secure it firmly with the screws.

1 Assemble the side panels and the pedal box with the 4 brass-colored screws.



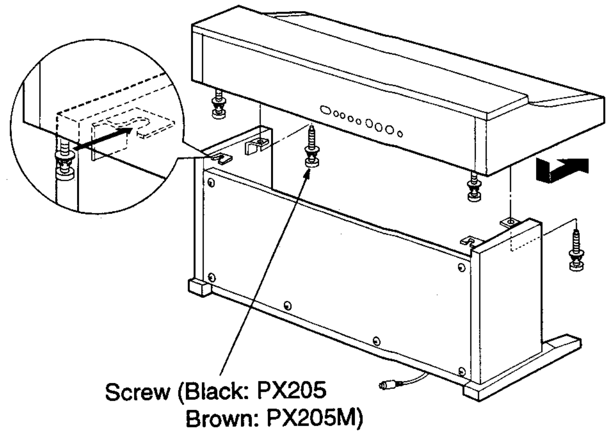
[Fig. 1]

2 Affix the rear panel.



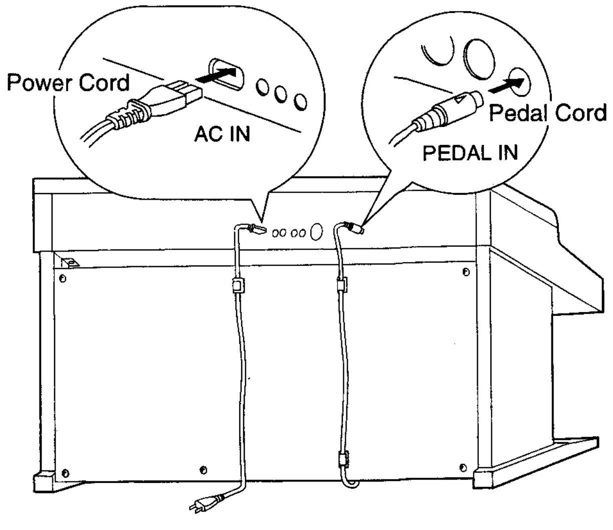
[Fig. 2]

3 Place the piano unit on the stand and secure it to the stand.



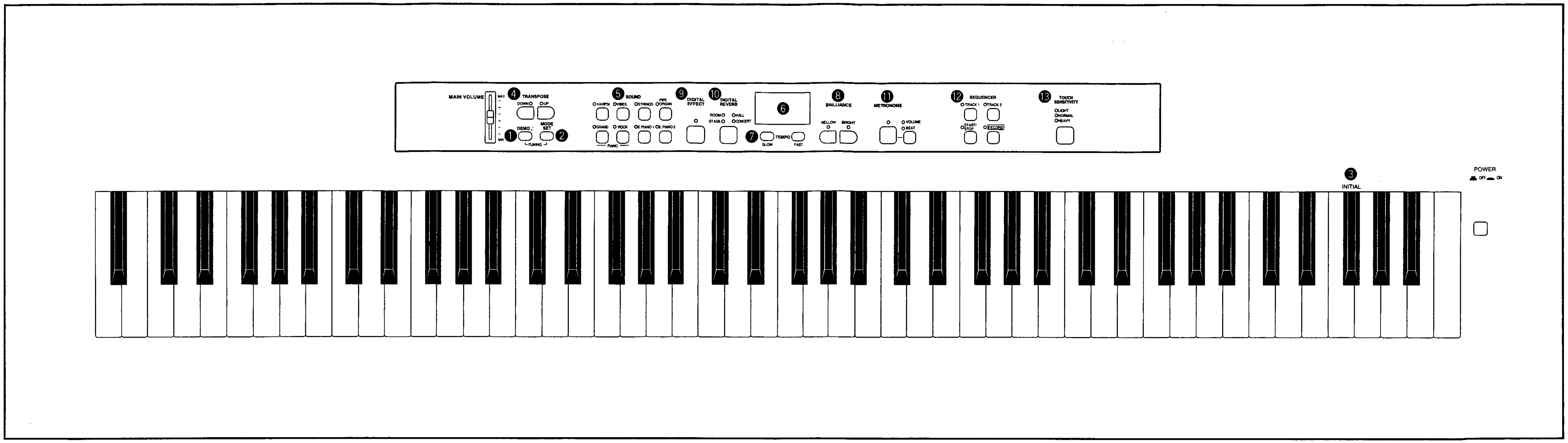
[Fig. 3]

4 Connect the pedal cord and power cord to their sockets located rear of the piano unit as shown below.



[Fig. 4]

ARRANGEMENT OF CONTROL PANEL


MAIN VOLUME
MAX
MIN
④ TRANSPOSE
DOWN
UP
① DEMO
MODE SET ②
TUNING
⑤ SOUND
HARPSI
VIBES
STRINGS
PIPE ORGAN
GRAND
ROCK
E PIANO 1
E PIANO 2
PIANO
⑨ DIGITAL EFFECT
⑩ DIGITAL REVERB
ROOM
HALL
STAGE
CONCERT
⑥
⑦ TEMPO
SLOW
FAST
⑧ BRILLIANCE
MELLOW
BRIGHT
⑪ METRONOME
VOLUME
BEAT
⑫ SEQUENCER
TRACK 1
TRACK 2
START/STOP
RECORD
⑬ TOUCH SENSITIVITY
LIGHT
NORMAL
HEAVY
③ INITIAL
POWER
OFF
ON

① **DEMO**
Automatic demonstration performances stored in the piano's memory introduce the various sounds available. Listen to all the demonstration tunes in order, or listen to the demo tune of a specific sound.

② **MODE SET, ③ INITIAL KEY**
Used when selecting functions to set or adjust, including type of piano tuning, minimum range, initialization, plus all settable MIDI functions. Also used when erasing **SEQUENCER** tracks.

- If the **INITIAL KEY** is pressed while the **MODE SET** button is depressed, the settings of the buttons, etc. will return to the initialized settings made by the manufacturer.

④ **TRANSPOSE**
C is the standard setting, but you can raise or lower the key of the entire instrument within a one-octave range with these two buttons. The buttons are also used for adjusting the volume balance of mixed sounds.

⑤ **SOUND**
Select from 8 different sounds for the piano. You can mix sounds by selecting two simultaneously. All sounds feature Touch Response.

⑥ **Display**
Various information is shown on the display, including **SEQUENCER** information (remaining memory capacity, error indication) and MIDI information (selected MIDI CHANNEL, PROGRAM CHANGE number).

⑦ **TEMPO**
Use to adjust the tempo and volume of the metronome and the playback tempo of the **SEQUENCER**.

⑧ **BRILLIANCE**
Select the brightness of the sound from five settings. The setting is memorized independently for each sound.

⑨ **DIGITAL EFFECT**
Apply a celeste effect to give the sound greater depth. The setting is memorized independently for each sound.

⑩ **DIGITAL REVERB**
Add a reverb effect to the sound. Choose one of four different echo types. The setting is memorized independently for each sound.

⑪ **METRONOME**
You can play in time with a metronome sound. The metronome volume and speed are adjustable, and you can accent the metronome sound to match the time signature of the music.

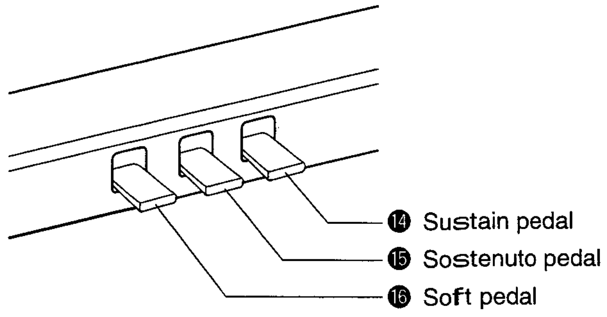
⑫ **SEQUENCER**
Record your performance and have it automatically played back.

⑬ **TOUCH SENSITIVITY**
Choose **LIGHT**, **NORMAL** or **HEAVY** keyboard touch (Touch Response) to match your type of playing

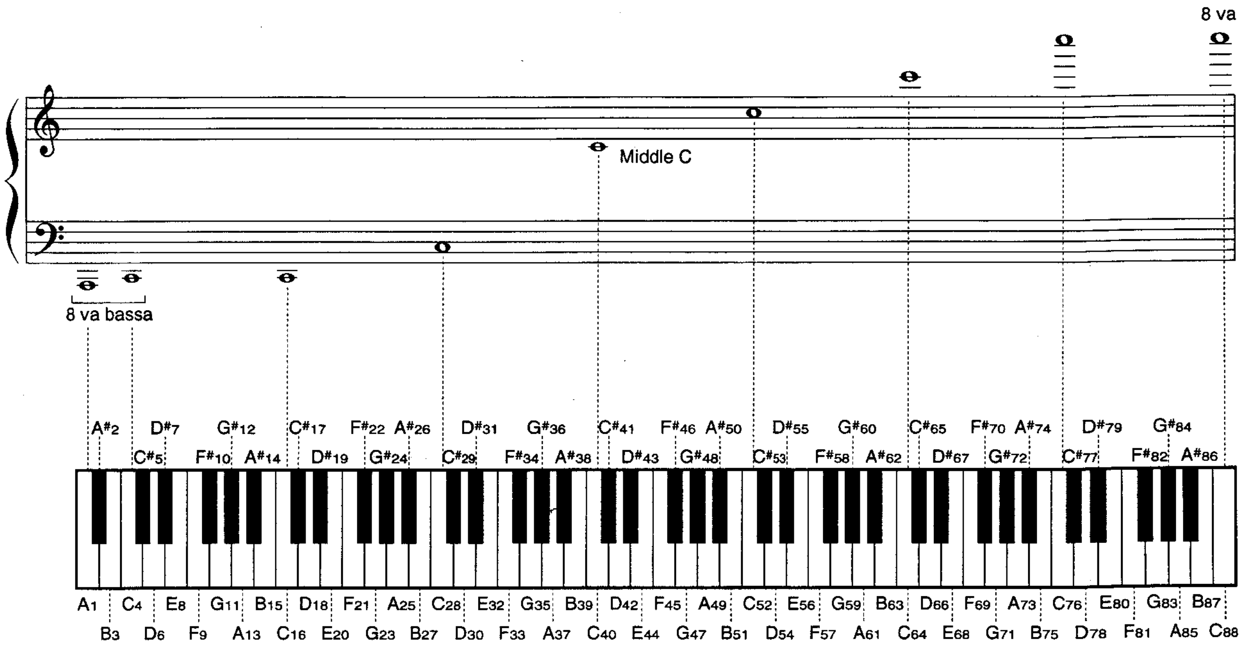
⑭ **Sustain Pedal**
The sound is sustained when a key is released while this pedal is depressed. The length of the sustain is controlled by the degree to which the pedal is depressed (8 stages). For **GRAND PIANO** and **ROCK PIANO** sounds, the tones of the 17 rightmost keys are automatically sustained.

⑮ **Sostenuto pedal**
Sustain is added only to the notes played while the pedal is depressed.

⑯ **Soft pedal**
Press the pedal for softer, muted sound. It can also be used as a sostenuto pedal. When used as a sostenuto pedal, and **PIPE ORGAN** is selected, the tones continue to sound for as long as the pedal is depressed.


⑭ Sustain pedal
⑮ Sostenuto pedal
⑯ Soft pedal

KEYBOARD RANGES


8 va
Middle C
8 va bassa
A#2 D#7 G#12 C#17 F#22 A#26 D#31 G#36 C#41 F#46 A#50 D#55 G#60 C#65 F#70 A#74 D#79 G#84
C#5 F#10 A#14 D#19 G#24 C#29 F#34 A#38 D#43 G#48 C#53 F#58 A#62 D#67 G#72 C#77 F#82 A#86
A1 C4 E8 G11 B15 D18 F21 A25 C28 E32 G35 B39 D42 F45 A49 C52 E56 G59 B63 D66 F69 A73 C76 E80 G83 B87
B3 D6 F9 A13 C16 E20 G23 B27 D30 F33 A37 C40 E44 G47 B51 D54 F57 A61 C64 E68 G71 B75 D78 F81 A85 C88

INITIAL SETTING

The initial setting function is used to return to the original factory settings, and to reset the customer settings and misoperations. The selected sound and various functions, MIDI settings and **SEQUENCER** contents are initialized with this operation.

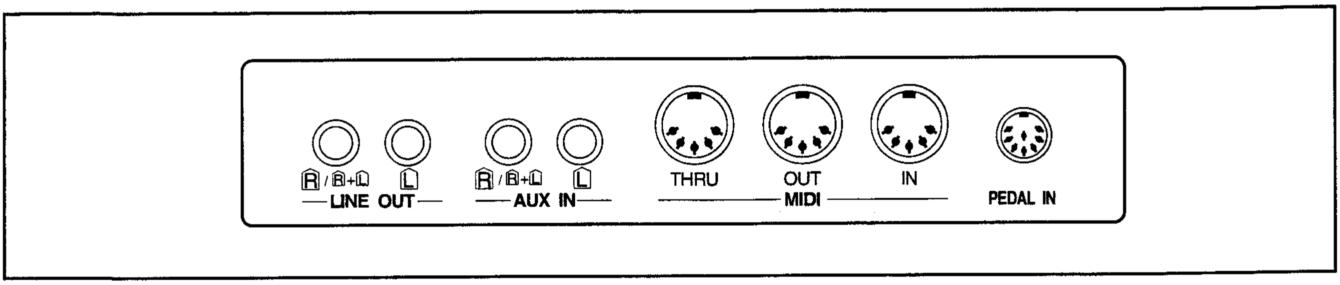
■ INITIAL SETTING

Press the **INITIAL** key while the **MODE SET** button is pressed. Or turn on the **POWER** switch while pressing the **INITIAL** key.

1. While pressing the **MODE SET** button.
2. Press the **INITIAL** key.

TERMINALS

(on the rear panel)



LINE OUT (output level 1.5 Vrms, 600 Ω)
By plugging into an external high-power amplifier, the sound can be reproduced at a high volume. Or connect a tape recorder and use them as recording terminals. To output monaural sound, connect the external equipment to the **R/R+L** terminal. (Do not connect the **L** terminal.)

AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a rhythm machine or sound module can be connected to the piano so that the sound is output from the piano. To receive monaural sound, connect the other instruments to the **R/R+L** terminal. (Do not connect the **L** terminal.)

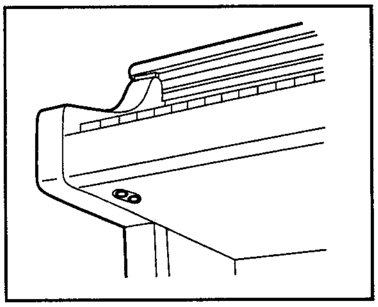
MIDI (Musical Instrument Digital Interface)
MIDI is the standard specification that enables connection to equipment such as synthesizers and personal computers.

IN :	The terminal that receives data from external equipment.
OUT :	The terminal that transmits data from this instrument to external equipment.
THRU:	The terminal that transfers data from the **IN** terminal directly to other equipment.

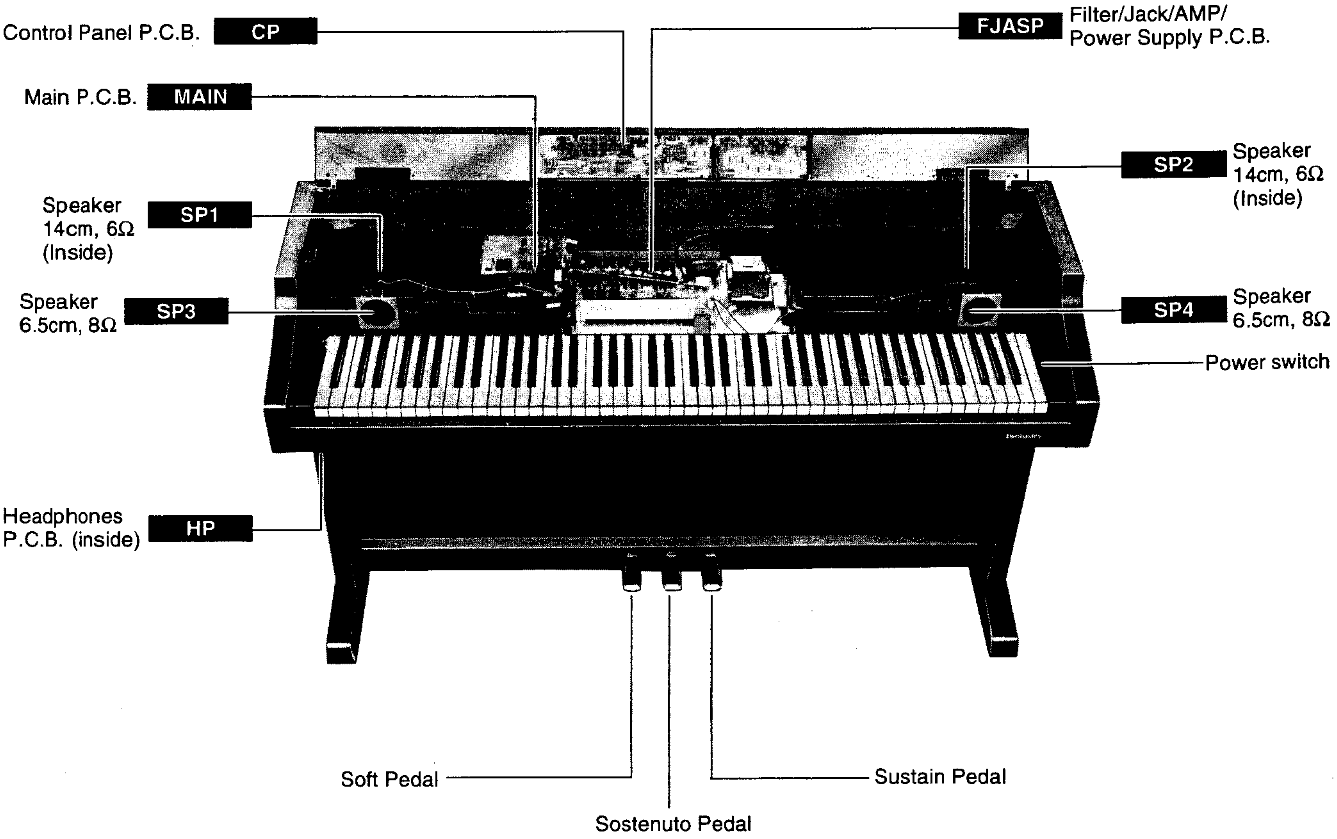
- Use a 5-pin DIN cord (less than 15 m long) for these connections.

PEDAL IN
Connect the cord from the included stand to this terminal.

HEAD PHONES×2
For silent practice, headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.



PARTS LOCATION


Control Panel P.C.B.
CP
Main P.C.B.
MAIN
Speaker
14cm, 6Ω
(Inside)
SP1
Speaker
6.5cm, 8Ω
SP3
Headphones
P.C.B. (inside)
HP
FJASP
Filter/Jack/AMP/
Power Supply P.C.B.
SP2
Speaker
14cm, 6Ω
(Inside)
SP4
Speaker
6.5cm, 8Ω
Power switch
Soft Pedal
Sostenuto Pedal
Sustain Pedal

[Photo-1]

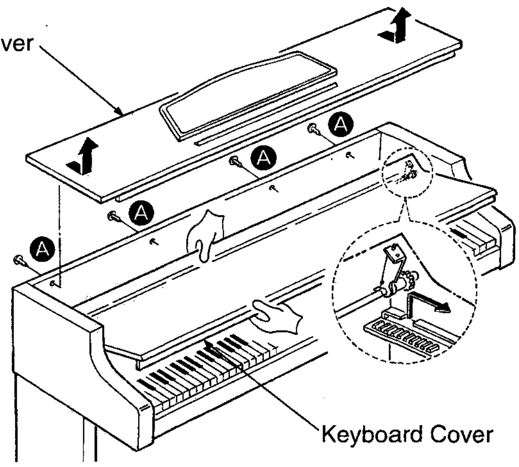
DISASSEMBLY INSTRUCTIONS

1 Removing the top cover

1. Remove the top cover holding screws (Ⓐ 4 pcs.).
2. Slide the top cover forward and lift up.

2 Removing the keyboard cover

1. Remove the top cover (see Step 1).
2. Close the keyboard cover completely so that the gears at the rear of the keyboard cover become free from the guide rails.
3. Lift the keyboard cover up.



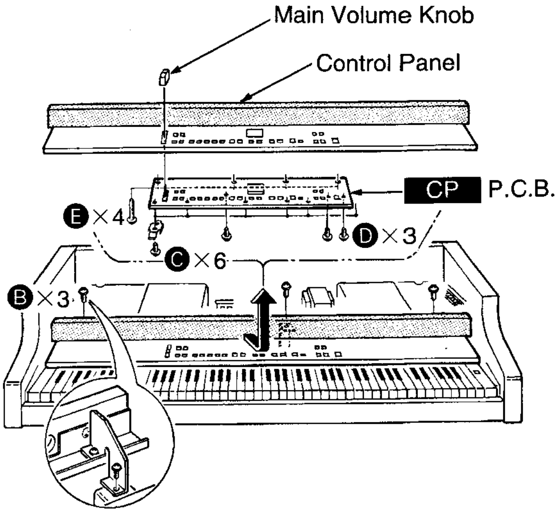
[Fig.5]

3 Removing the control panel

1. Remove the top cover and keyboard cover (see Step 1, 2).
2. Remove the control panel holding screws (Ⓑ 3 pcs.).
3. Remove the control panel as shown in Fig. 6.

4 Removing the CP P.C.B.

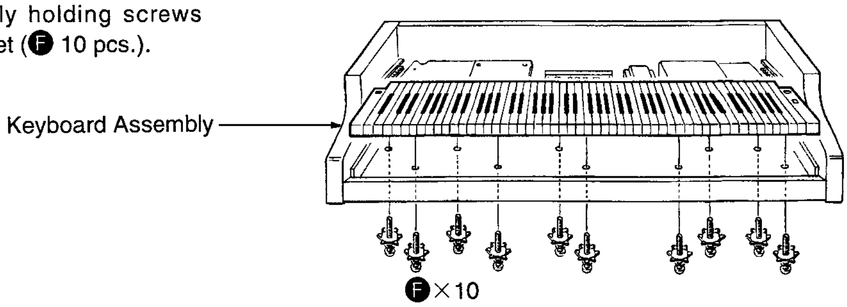
1. Remove the control panel (see Step 3).
2. Remove the main volume knob.
3. Remove the CP P.C.B. mounting screws (Ⓒ 6 pcs., Ⓓ 3 pcs., Ⓔ 4 pcs.).



[Fig.6]

5 Removing the keyboard assembly

1. Remove the control panel (see Step 3).
2. Remove the keyboard assembly holding screws located on the bottom of the cabinet (Ⓕ 10 pcs.).



[Fig.7]

6 Keys (s)

Disassembly

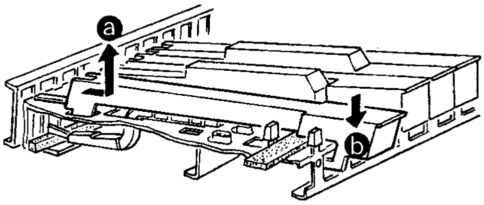
1. Remove the keyboard assembly (see Step 5).
2. To release the key claw.
   ⓐ Press the front of the key downward slightly.
   ⓑ Press the rear of the key forward gently.
3. To remove the key, lift as shown in Fig. 8.

NOTE:

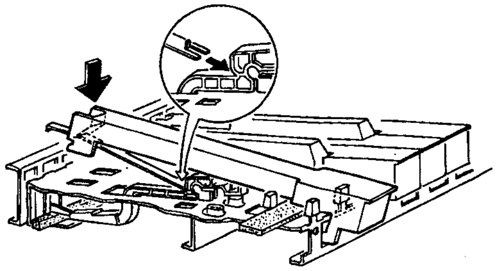
- The key claw is easily broken. Do not apply undue force. Should a key claw break, it can still be used; however, a replacement is recommended.
- If a black key is to be replaced it is necessary to remove both adjacent white keys.

Assembly

1. Insert the front part of the key into the chassis.
2. Insert the plate spring into the hammer notch as shown in Fig. 9.
3. While slowly lowering the key into the chassis, insert the plate spring into the notch at the rear of the key.
4. Carefully insert the key into the opening in the chassis and slide the key towards the rear to lock it in place.



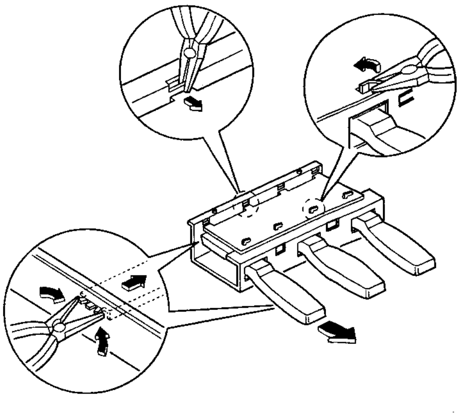
[Fig.8]



[Fig.9]

7 Disassembly of the pedal assembly

1. Remove the pedal assembly from the pedal box.
2. Disassemble the pedal assembly as shown in Fig. 10.



[Fig.10]

8 Removing the speaker box and speaker

•Removing the speaker box

1. Remove the keyboard assembly (see Step 5).
2. Remove the speaker box holding screws (Ⓖ 8 pcs.).

•Removing the speaker

1. Remove the speaker box.
2. Remove the speaker holding screws (Ⓗ 4 pcs.).

9 Removing the printed circuit boards

•Remove the top cover and keyboard cover (see Step 1, 2).

MAIN P.C.B.

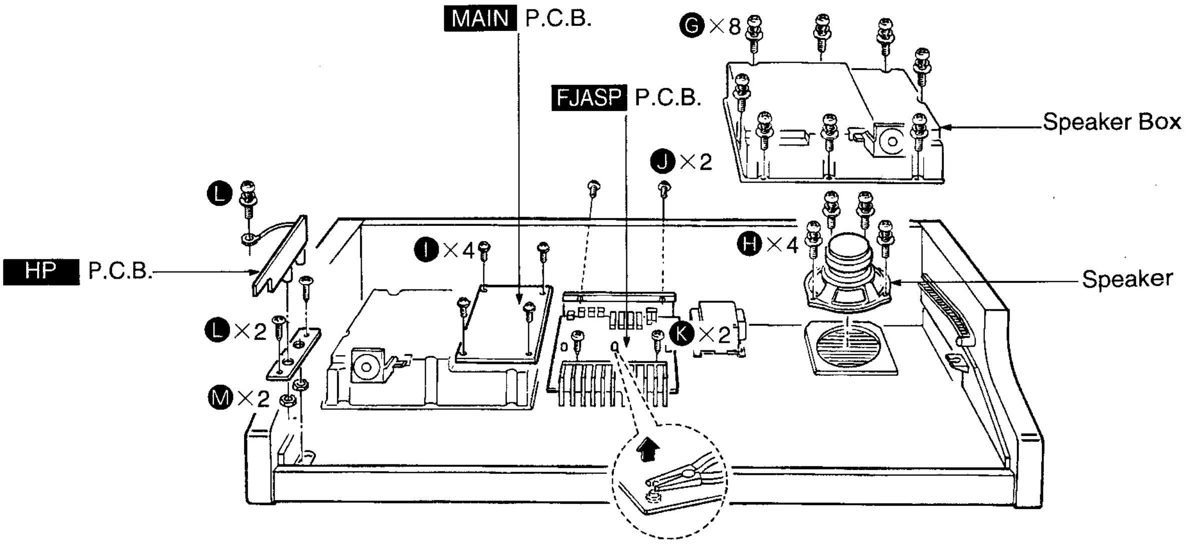
1. Remove the MAIN P.C.B. mounting screws (Ⓘ 4 pcs.).
2. Release the claws of the P.C.B. holders.

FJASP P.C.B.

1. Remove the FJASP P.C.B. mounting screws (Ⓙ 2 pcs., Ⓚ 2 pcs.).
2. Release the claws of the P.C.B. holder.

HP P.C.B.

1. Remove the keyboard assembly (see Step 5).
2. Remove the headphone jack mounting screws and nuts (Ⓛ 3 pcs., Ⓜ 2 pcs.).



[Fig.11]

SYMPTOMS WHICH APPEAR TO BE SIGNS OF TROUBLE

Phenomenon	Remedy
No sound is produced when the keyboard is played.	•No sound is produced if the **MAIN VOLUME** is set to **MIN**. Use the sliding control to set the volume to an appropriate level. •If the MIDI LOCAL CONTROL is set to off, set it to on.
Nothing is shown on the display.	•The metronome, **SEQUENCER** tempo, etc. are indicated on the display. During normal performance, however, the display is off.

■About the back-up memory

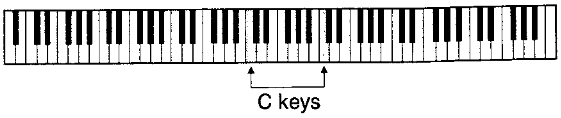
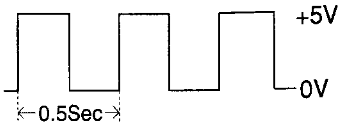
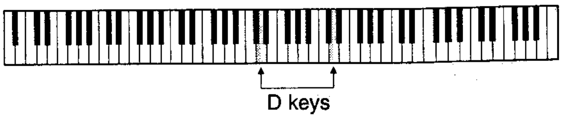
The selected sound and various functions, and MIDI settings remain in the memory for about one week after the **POWER** is turned off. If you wish to return all memories and settings to their factory preset status, while pressing the **MODE SET** button, press the **INITIAL** key on the keyboard. Or, press the **POWER** on and hold the **INITIAL** key at the same time.

ABOUT THE SELF-DIAGNOSTIC FUNCTION

This model has some self-diagnostic capabilities. When set to the self-diagnostic mode, operation of various components can be verified by following the procedures in the chart below.

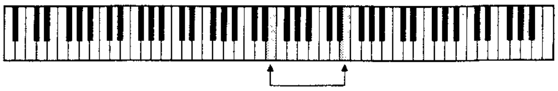
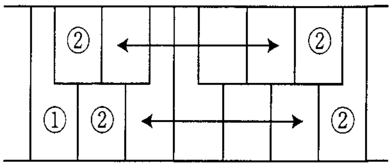
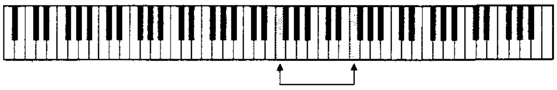
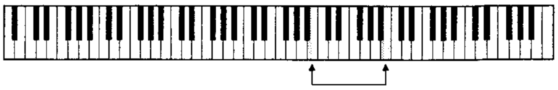
<table>
<tr><th>No.</th><th>PCB</th><th>TEST MODE</th><th>Procedure</th></tr>
<tr><td>1</td><td>MAIN</td><td>RAM (IC7), ROM (IC4) check</td><td>1. Connect the CHECKING DEVICE (refer to page I-13) to CN 7 on the MAIN P.C.B., and turn on the CHECKING DEVICE switch.
2. Turn on the power switch.</td></tr>
<tr><td></td><td></td><td colspan="2">When the power switch is turned on, the LED of the CHECKING DEVICE flashes 8 times. The first 4 flashes are for the RAM check, and the latter 4 flashes are for the ROM check. The order of the LED flashes corresponds to the respective IC numbers as shown below. If an IC is defective, the corresponding flash time is longer.

Examples
RAM: 1 2 3 4   ROM: 1 2 3 4
1. RAM OK, ROM OK → ● ● ● ●   ● ● ● ●
2. RAM OK, ROM defective → ● ● ● ●   ▬ ● ● ●
3. RAM defective, ROM OK → ▬ ● ● ●   ● ● ● ●
↑ IC7   ↑ IC4

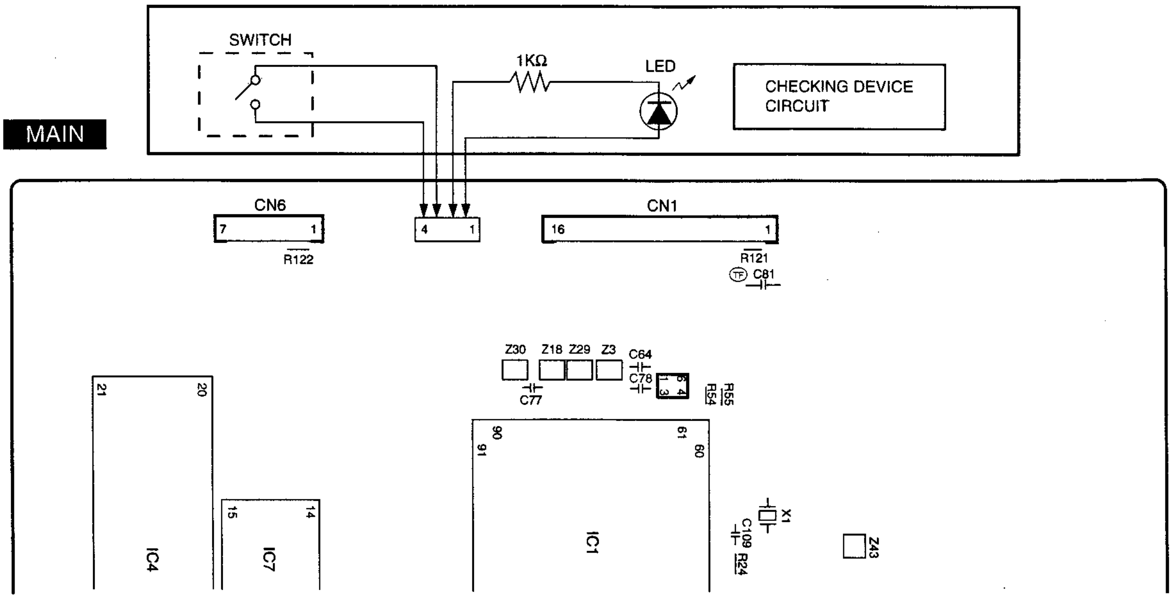
NOTE : ● indicates short flash time = OK
▬ indicates long flash time = Defective</td></tr>
<tr><td>2</td><td>MAIN</td><td>V53 Gate Array (IC2) check</td><td>Press and hold the two C keys shown below, and then turn on the power switch.

 </td></tr>
<tr><td></td><td></td><td colspan="2">Monitor pins 46-48 (DL6-DL4) of IC2 on an oscilloscope, and check whether incremental data (see figure) is output.

 </td></tr>
<tr><td>3</td><td>CP</td><td>CPU (IC1) check</td><td>1. Connect the CHECKING DEVICE to CN 7 on the MAIN P.C.B. (The Checking Device switch should be off).
2. Press and hold the two D keys shown below, and then turn on the power switch.

 </td></tr>
<tr><td></td><td></td><td colspan="2">When the power switch is turned on, the LED of the CHECKING DEVICE flashes 4 times. The order of the LED flashes corresponds to the CPU (IC) on the respective P.C.B..s as shown below. If an IC is defective, the corresponding flash time is longer.

1 2 3 4
1. IC1 OK → ● ● ● ●
2. IC1 defective → ▬ ● ● ●
↑ CPU (IC1)

NOTE : ● indicates short flash time = OK
▬ indicates long flash time = Defective</td></tr>
</table>

No.	PCB	TEST MODE	Procedure
4	**MAIN**	Wave ROM (IC6, 19) check	1. Press and hold the two E keys shown below, and then turn on the power switch. 2. Select the GRAND PIANO sound. 
		When set to the self-diagnostic mode, the Wave ROM outputs a sine wave. If no sound is produced, or if the sound is distorted, the Wave ROM is defective.	•The key number indicates the wave ROM number (①: IC6, ②: IC19). 
5	**CP**	Control Panel LED check	Press and hold the two F keys shown below, and then turn on the power switch. 
		Press the buttons on the control panel and confirm that the corresponding LEDs light.	
6	**MKB**	Keyboard ROM (IC2) check	Press and hold the two B keys shown below, and then turn on the power switch. 
		If the keyboard ROM (IC2) is OK, one confirming beep will sound. If it is defective, several consecutive error beeps will sound.	

■ Connection between serving CHECKING DEVICE and MAIN P.C.B.


MAIN
SWITCH
1KΩ
LED
CHECKING DEVICE CIRCUIT
CN6
7
1
R122
4
1
CN1
16
1
R121
C81
Z30
Z18
Z29
Z3
C64
C77
C78
R54
R55
21
20
IC4
15
14
IC7
90
91
61
60
IC1
X1
C109
R24
Z43

MIDI IMPLEMENTATION CHART

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1–16	1–16	memorized
	Changed	1–16	1–16	
Mode	Default	3	1, 3	memorized
	Messages	×	×	
	Altered	—	—	
Note Number		*21–108	0–127	
	True voice	—	*0–127	
Velocity	Note ON	○	○	
	Note OFF	× (9nH: V=0)	×	
After Touch	Key's	×	×	
	Ch's	×	×	
Pitch Bend		×	×	
Control Change	7	×	**○	volume
	64	○×	○×	sustain pedal
	66	○×	○×	sostenuto pedal
	67	○×	○×	soft pedal
	93	○×	○×	chorus (digital effect)
Prog Change		○×	○×	
	True #	0–127	0–7 (PX205) 0–9 (PX207)	
System Exclusive		×	×	
System Common	Song Pos	×	×	
	Song Sel	×	×	
	Tune	×	×	
System Real Time	Clock	×	×	
	Commands	×	×	
Aux Messages	Local ON/OFF	×	×	
	All Notes OFF	×	○	
	Active Sense	○	○	
	Reset	×	×	
Notes		○× ....Whether or not the data for each of these items is transmitted or received can be set. * Changes depending on the **TRANSPOSE** setting. ** Effective only in the MULTI TIMBRE mode.		

Mode 1: OMNI ON, POLY **Mode 2:** OMNI ON, MONO ○ : Yes
Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO × : No

PRECAUTIONS BEFORE SERVICING

■ Precautions for measuring of the output waveforms.

1. The waveform was measured with a "National Digital Storage Oscilloscope VP-5730A". Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform photo is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the self-diagnostic mode (refer to page I-13, No. 4). The Wave ROM output will then be output as a sine wave to facilitate the servicing check.

■ Important safety notice:

Components identified by a ⚠ mark have special characteristics impotant for safety.
When replacing any of these components, use only manufacture's specified parts.

■ Symbolic Marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following TABLE-1 and TABLE-2.

1. RESISTORS
   - Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
   - All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

(TABLE-1)

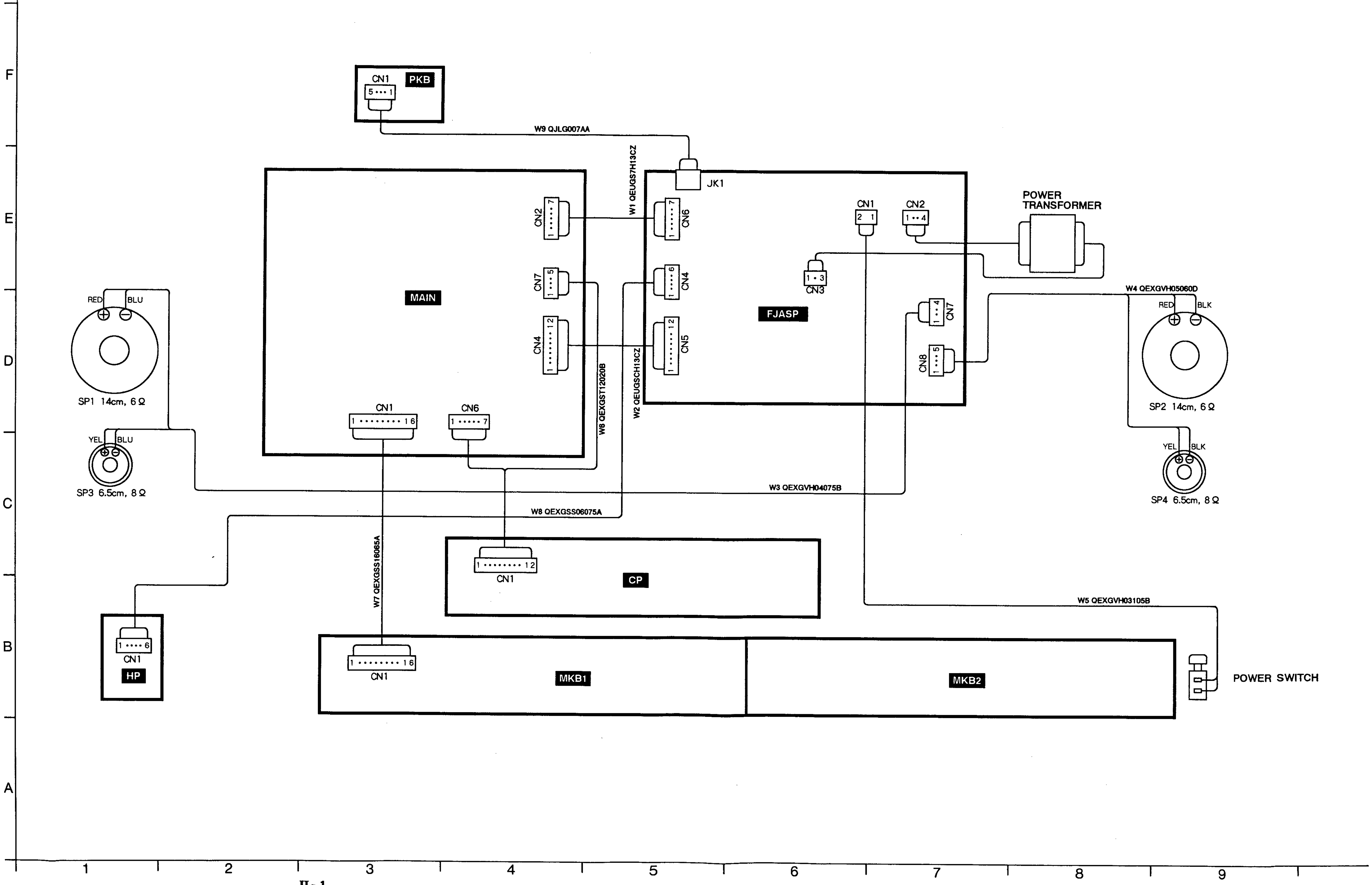
SYMBOL	SPECIFICATION	SYMBOL	SPECIFICATION
Ⓕ	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)	Ⓕ	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
Ⓕ	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)	🄵	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
Ⓕ	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)	🄵	Fuse Type Fixed Carbon File Resistors "FLAME-PROOF" (ERD2FC—type)
Ⓖ	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)		

2. CAPACITORS
   - Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10 % Tolerance)
   - Polarized capacitors without symbolic mark are Aluminum Electrolytic Capapcitors. (ECEA-type, ±20 % Tolerance)

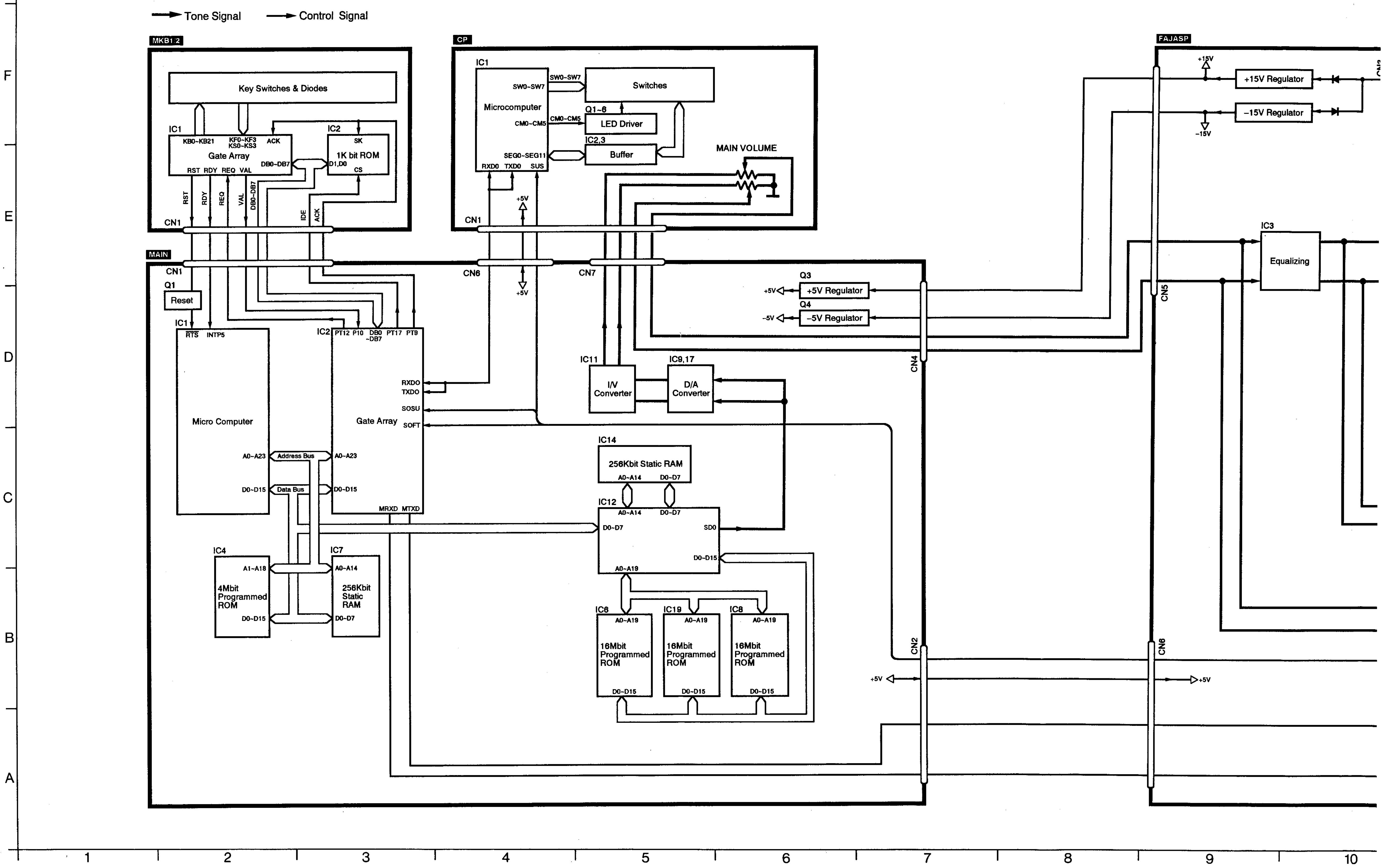
(TABLE-2)

SYMBOL	SPECIFICATION	TYPE
Ⓝ	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
Ⓨ	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
Ⓣ	Tantalum Solid Electrolytic Capacitors	ECS_type
(TF)	Metalized Plastic Film Capacitors (TF Series)	ECQV_type
○	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielectric Constant Ceramic Capacitors	ECK_type ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metalized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

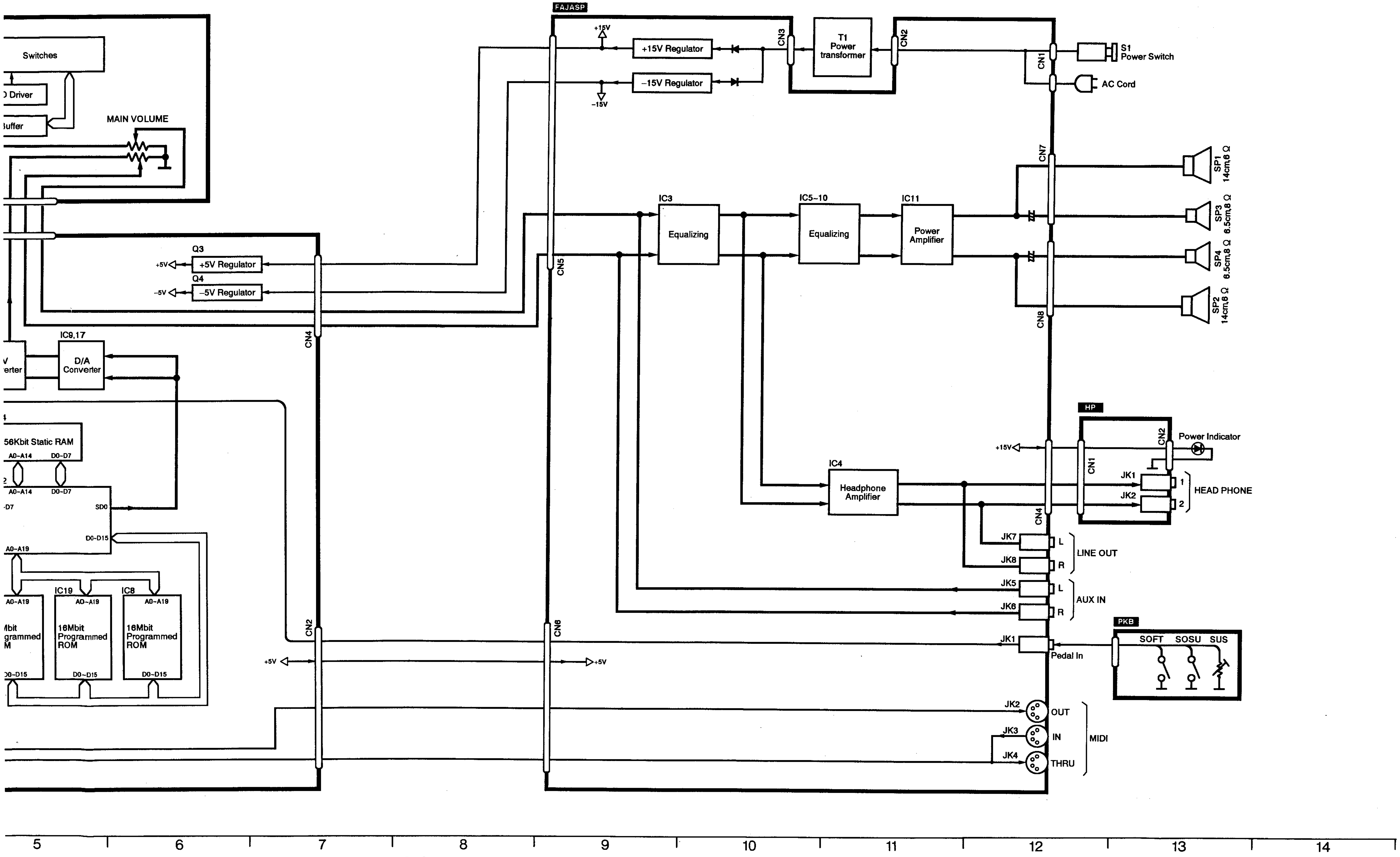
WIRING CONNECTION Diagram


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
PKB
CN1
5 ••• 1
W9 QJLG007AA
W1 QEUGS7H13CZ
JK1
MAIN
CN2
1 ••••• 7
CN7
1 ••• 5
CN4
1 ••••••• 12
CN1
1 ••••••••• 16
CN6
1 ••••• 7
W6 QEXGST12020B
W2 QEUGSCH13CZ
FJASP
CN6
1 ••••• 7
CN4
1 •••• 6
CN5
1 ••••••• 12
CN1
2 1
CN2
1 •• 4
CN3
1 • 3
CN7
1 •• 4
CN8
1 ••• 5
POWER TRANSFORMER
W4 QEXGVH05060D
RED
BLK
SP2 14cm, 6 Ω
YEL
BLK
SP4 6.5cm, 8 Ω
RED
BLU
SP1 14cm, 6 Ω
YEL
BLU
SP3 6.5cm, 8 Ω
W3 QEXGVH04075B
W8 QEXGSS06075A
W7 QEXGSS16065A
CP
CN1
1 ••••••••• 12
W5 QEXGVH03105B
HP
CN1
1 •••• 6
MKB1
CN1
1 ••••••••• 16
MKB2
POWER SWITCH

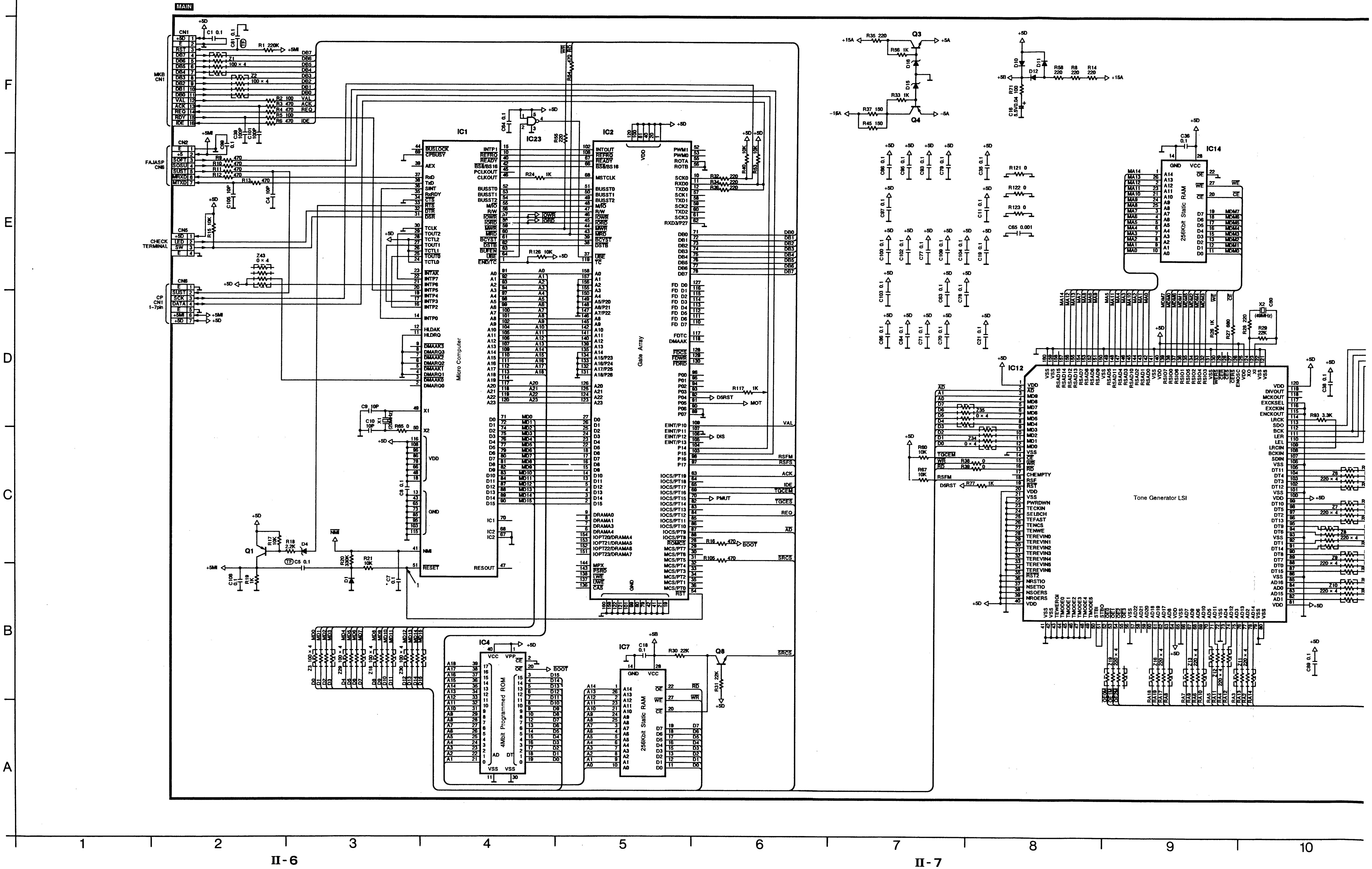
BLOCK Diagram

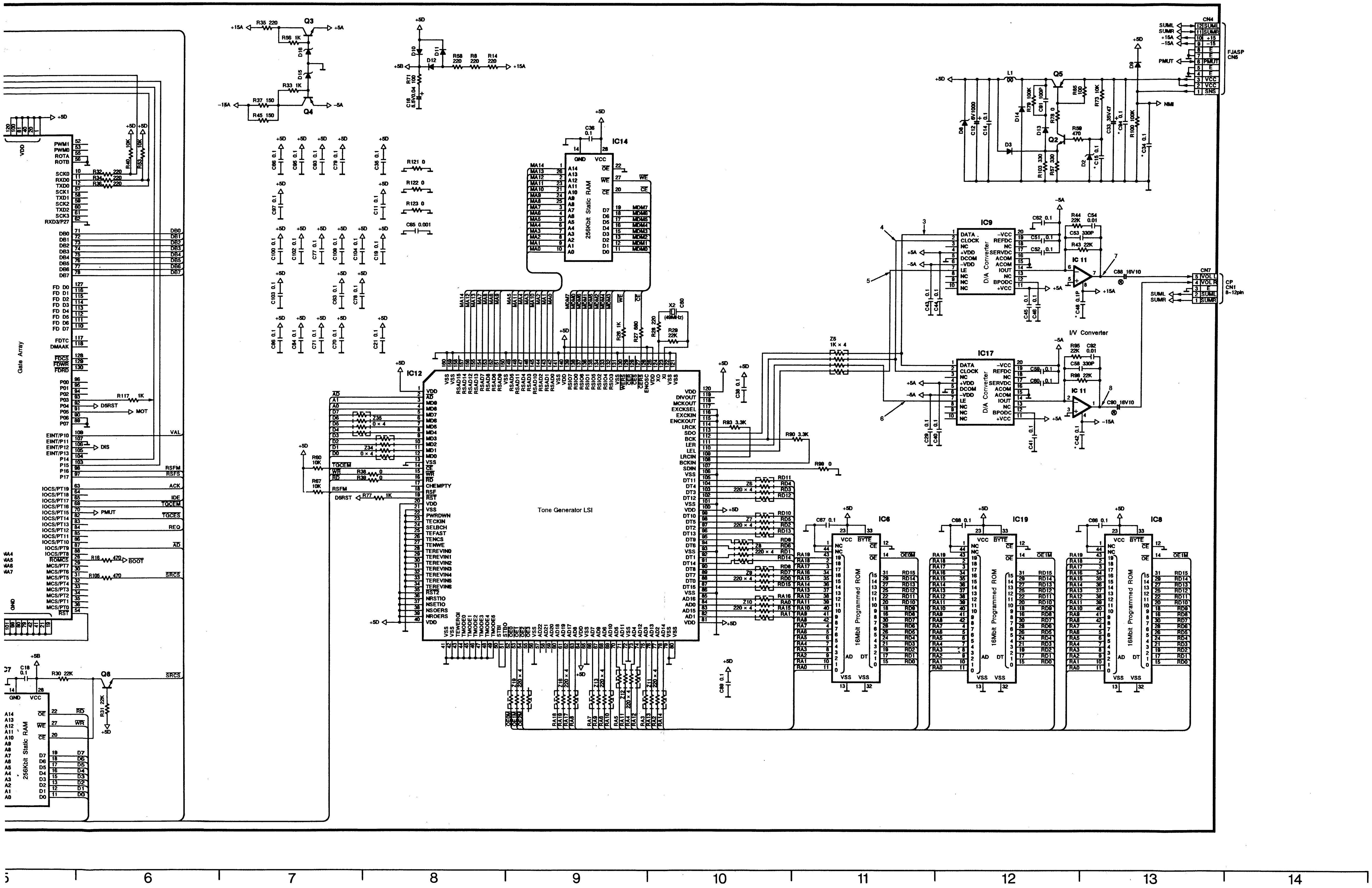


Tone Signal
Control Signal
MKB1 2
Key Switches & Diodes
IC1
KB0~KB21
KF0~KF3
KS0~KS3
ACK
Gate Array
RST RDY REQ VAL
DB0~DB7
IC2
SK
1K bit ROM
D1,D0
CS
RST
RDY
REQ
VAL
DB0~DB7
IDE
ACK
CN1
CP
IC1
SW0~SW7
Microcomputer
CM0~CM5
SEG0~SEG11
RXD0 TXD0 SUS
Switches
Q1~6
LED Driver
IC2,3
Buffer
MAIN VOLUME
+5V
CN1
FAJASP
+15V
+15V Regulator
−15V Regulator
−15V
IC3
Equalizing
MAIN
CN1
Q1
Reset
IC1
RTS
INTP5
Micro Computer
A0~A23
Address Bus
D0~D15
Data Bus
IC2
PT12 P10 DB0~DB7 PT17 PT9
RXD0
TXD0
SOSU
SOFT
Gate Array
A0~A23
D0~D15
MRXD MTXD
CN6
+5V
CN7
Q3
+5V
+5V Regulator
Q4
−5V
−5V Regulator
CN4
CN5
IC11
I/V Converter
IC9,17
D/A Converter
IC14
256Kbit Static RAM
A0~A14
D0~D7
IC12
A0~A14
D0~D7
D0~D7
SD0
D0~D15
A0~A19
IC4
A1~A18
4Mbit Programmed ROM
D0~D15
IC7
A0~A14
256Kbit Static RAM
D0~D7
IC6
A0~A19
16Mbit Programmed ROM
D0~D15
IC19
A0~A19
16Mbit Programmed ROM
D0~D15
IC8
A0~A19
16Mbit Programmed ROM
D0~D15
CN2
+5V
CN8
+5V
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10


Switches
) Driver
Buffer
MAIN VOLUME
Q3
+5V Regulator
+5V
Q4
-5V Regulator
-5V
IC9,17
D/A Converter
V
erter
56Kbit Static RAM
A0~A14
D0-D7
A0~A14
D0~D7
SD0
D0-D15
A0~A19
IC19
IC8
A0~A19
16Mbit Programmed ROM
16Mbit Programmed ROM
Mbit grammed M
D0~D15
CN4
CN2
+5V
FAJASP
+15V
-15V
+15V Regulator
-15V Regulator
CN3
T1 Power transformer
CN2
CN1
S1 Power Switch
AC Cord
CN5
CN7
IC3
Equalizing
IC5~10
Equalizing
IC11
Power Amplifier
SP1 14cm,8 Ω
SP3 6.5cm,8 Ω
SP4 6.5cm,8 Ω
SP2 14cm,8 Ω
CN8
HP
+15V
CN2
CN1
Power Indicator
JK1
JK2
1
2
HEAD PHONE
IC4
Headphone Amplifier
CN4
JK7
JK8
L
R
LINE OUT
JK5
JK6
L
R
AUX IN
CN6
+5V
JK1
Pedal In
PKB
SOFT
SOSU
SUS
JK2
JK3
JK4
OUT
IN
THRU
MIDI
5
6
7
8
9
10
11
12
13
14

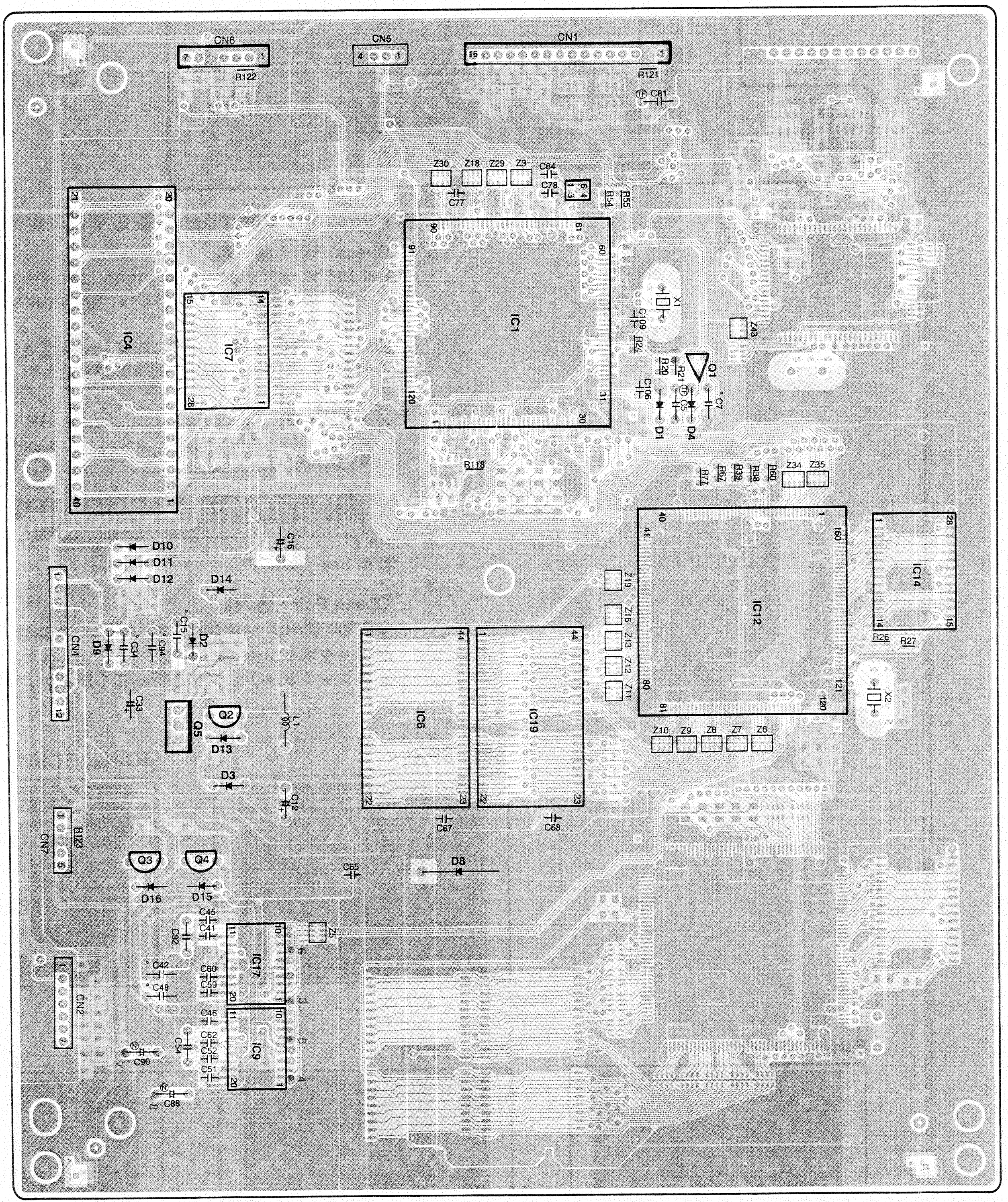
MAIN P.C. Diagram


MAIN
IC1
Micro Computer
IC2
Gate Array
IC23
IC4
4Mbit Programmed ROM
IC7
256Kbit Static RAM
IC14
256Kbit Static RAM
IC12
Tone Generator LSI
Q1
Q3
Q4
Q8
MKB CN1
FAJASP CN6
CHECK TERMINAL
CP CN1 1-7pin
CN1
CN2
CN5
CN6
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
10


Gate Array
VDD
GND
IC12
Tone Generator LSI
IC14
256Kbit Static RAM
256Kbit Static RAM
IC6
IC19
IC8
16Mbit Programmed ROM
16Mbit Programmed ROM
16Mbit Programmed ROM
IC9
D/A Converter
IC17
D/A Converter
IC 11
IC 11
I/V Converter
CN4
FJASP CN6
CN7
CP CN1 8-12pin
Q3
Q4
Q5
Q2
Q8
X2 (48MHz)
Z5 1K × 4
Z6 220 × 4
Z7 220 × 4
Z8 220 × 4
Z9 220 × 4
Z10 220 × 4
Z34 0 × 4
Z35 0 × 4
SUML
SUMR
PMUT
NMI
VOL L
VOL R
+5D
+5A
-5A
+15A
-15A
+5B
5
6
7
8
9
10
11
12
13
14

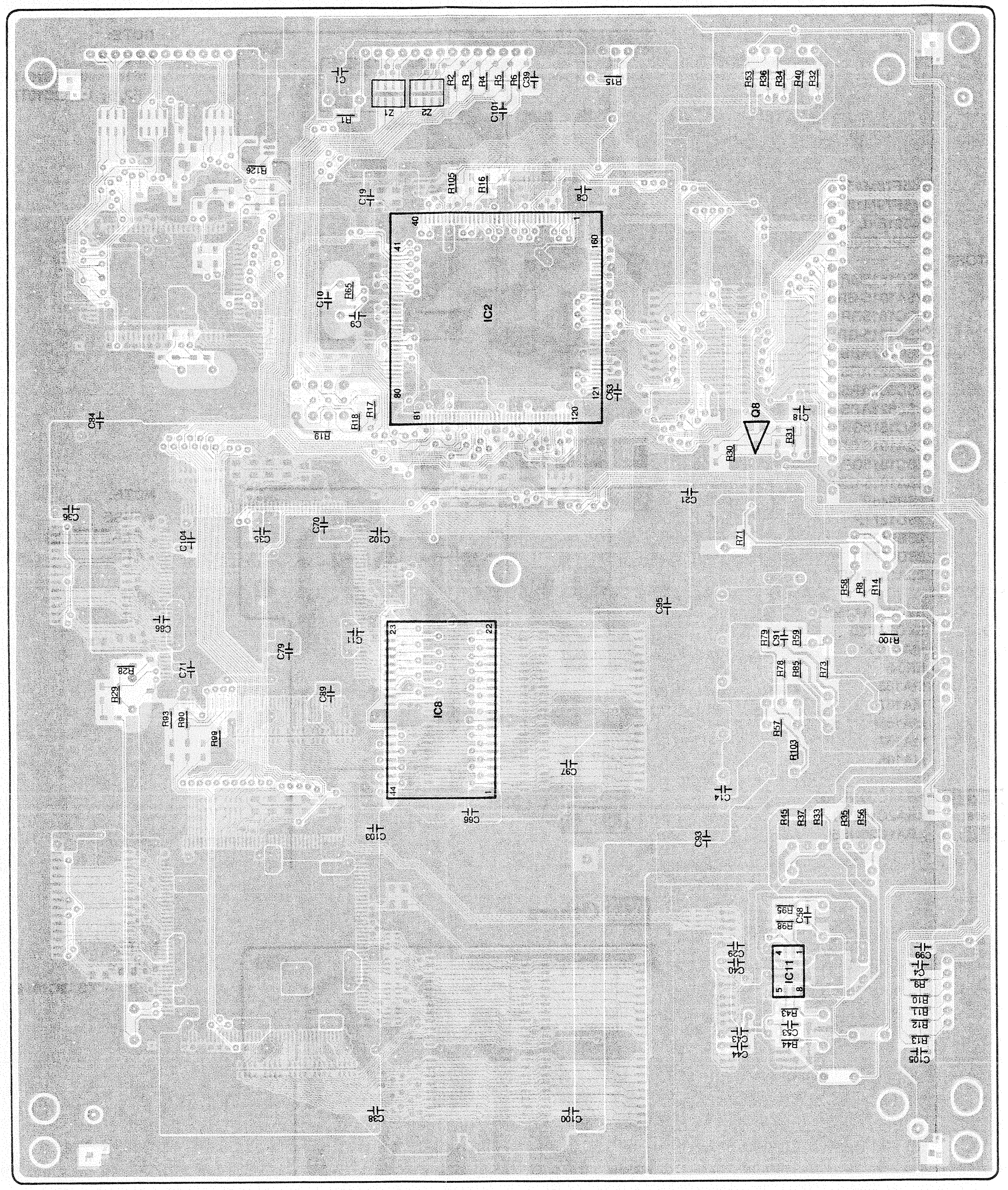
MAIN P.C. Board

MAIN (SXPG224041) (COMPONENT SIDE)

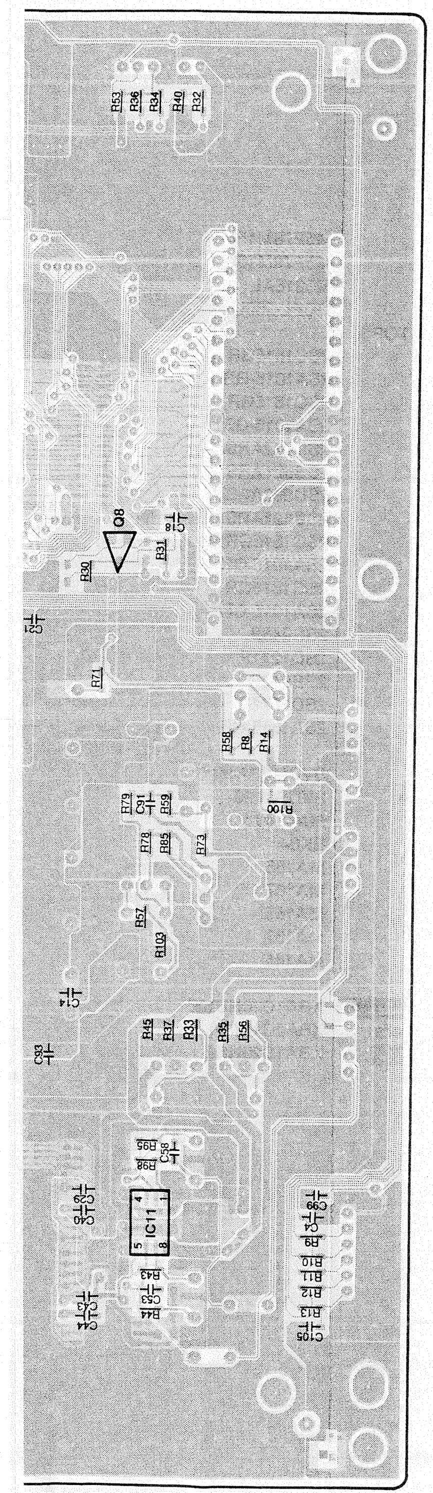


CN6
CN5
CN1
R122
R121
C81
Z30
Z18
Z29
Z3
C64
C77
C78
R55
R54
IC4
IC7
IC1
X1
C19
C18
R25
Z43
Q1
R21
D1
D4
C7
R118
R62
R58
R59
Z34
Z35
D10
D11
D12
D14
C16
CN4
D9
D2
C34
C33
Q2
Q5
D13
L1
D3
C12
IC6
IC19
C67
C68
IC12
IC14
R26
R27
X2
Z19
Z16
Z13
Z12
Z11
Z10
Z9
Z8
Z7
Z6
CN7
R123
Q3
Q4
D16
D15
D8
C65
IC17
IC9
Z5
C45
C41
C82
C42
C48
C60
C59
C46
C62
C52
C51
C54
CN2
C90
C88

MAIN (FOIL SIDE)



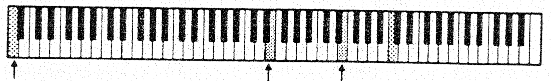
IC2
IC8
IC11
Q8
Z1
Z2
R105
R116
R117
R118
R119
R30
R31
R71
R100
R102
R103
C104
C101
C105
C106
C107
C108



MAIN

NOTES:

• IC'S	
IC1:	D70236AGD10
IC2:	D65046GD188
IC4:	QSIGCX207AX
IC4-1:	〔M27C400210F1〕
IC6:	QSIGH3C16DK9
IC7:	LH52B256N7LL
IC8:	QSIGH3C16DL1
IC9:	PCM1702U
IC11:	M5218AFP
IC12:	D93083GDLBD
IC14:	TC51832AFL85
IC17:	PCM1702U
IC19:	QSIGH3C16DL0
IC23:	TC7S00F
• TRANSISTORS	
Q1:	2SB709AR
Q2, 3:	2SC1815GR
Q4:	2SA1015-GR
Q5:	2SB941P
Q8:	2SD601AQ
• DIODES	
D1:	MA165
D2:	MA4047H
D3:	MA165
D4:	MA4030
D8:	MA2062LF
D9:	MA162A
D10～12:	MA165
D13:	MA162A
D14:	EK04
D15, 16:	MA4062



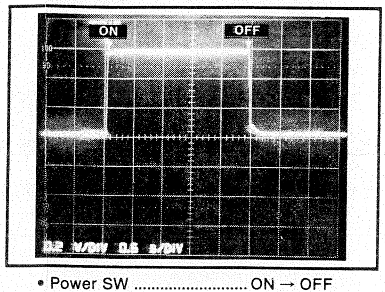
Check Point ❶
Set the initial setting mode (Refer to page Ⅰ-6)
イニシャルセッティングを行ってください。（Ⅰ-6 ページ参照)
- SOUND .... GRAND PIANO
- Main Volume................................ Center

Measuring Condition ■波形の測定条件

Check Point ❸～❽
Set to the self-diagnostic mode followings.
- While pressing two E keys (①) simultaneously, turn on the power switch.

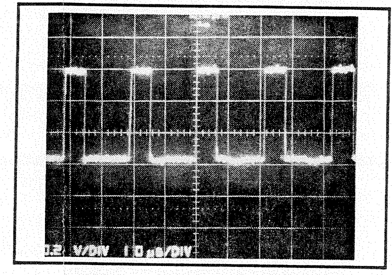
次のように自己診断モードに設定してください。
- 2 つの E キー（①）を同時に押しながら、電源スイッチをオンする。
- SOUND .... GRAND PIANO
- Main Volume................................ Center
- Keyboard .... A_1 (②)

❶ $\overline{\text{RESET}}$

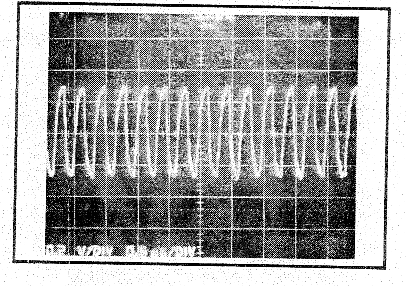


- Power SW .... ON → OFF

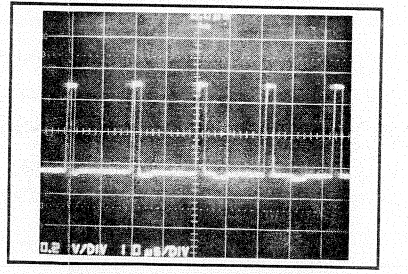
❸



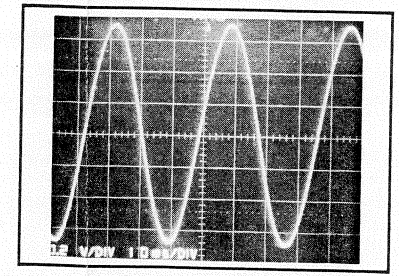
❹



❺, ❻



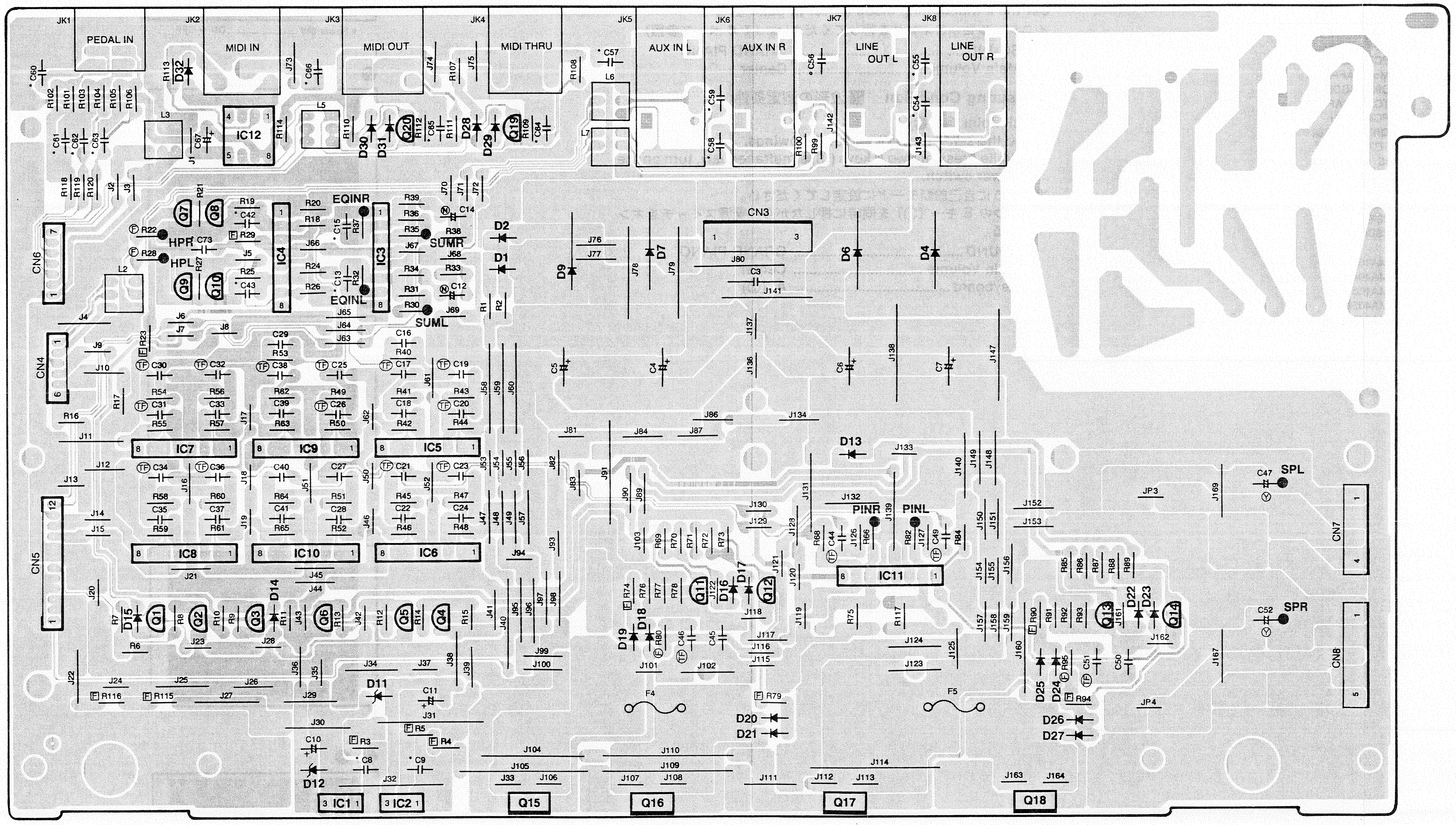
❼, ❽



FJASP/HP P.C. Board

X **XS** **XD** **XT** (SXPG224461A)
M **MC** **XM** (SXPG224431A)
FJASP Others (SXPG224421A)

日本向 (SXPG224411A)
XR (SXPG224451A)
XL (SXPG224441A)


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
JK1
PEDAL IN
JK2
MIDI IN
JK3
MIDI OUT
JK4
MIDI THRU
JK5
AUX IN L
JK6
AUX IN R
JK7
LINE OUT L
JK8
LINE OUT R
IC12
HPR
HPL
EQINR
EQINL
SUMR
SUML
IC4
IC3
CN3
CN6
CN4
CN5
IC7
IC9
IC5
IC8
IC10
IC6
D13
PINR
PINL
IC11
SPL
SPR
CN7
CN8
F4
F5
D20
D21
D26
D27
D12
D11
IC1
IC2
Q15
Q16
Q17
Q18

FJASP

NOTES:

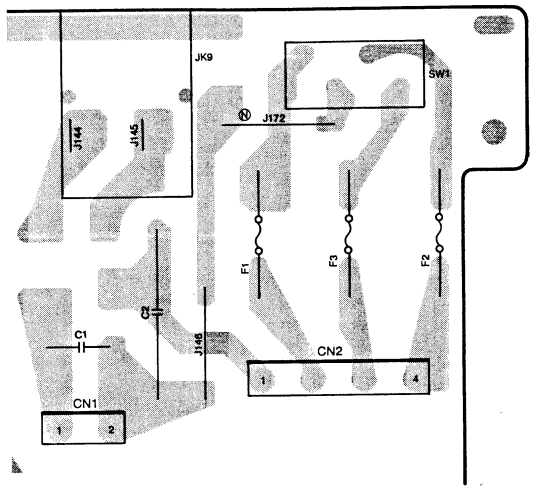
• IC'S	
IC1:	M5F78M15L
IC2:	M5F79M15L
IC3～11:	M5218AL
IC12:	QCPL-260L
• TRANSISTORS	
Q1, 2:	2SC1815GR
Q3:	2SA1015-GR
Q4:	2SC1815GR
Q5, 6:	2SA1015-GR
Q7:	2SD592ARS
Q8:	2SB621ARS
Q9:	2SD592ARS
Q10:	2SB621ARS
Q11:	2SC1815GR
Q12:	2SA1015-GR
Q13:	2SC1815GR
Q14:	2SA1015-GR
Q15:	2SB946P
Q16:	2SD1271P
Q17:	2SB946P
Q18:	2SD1271P
Q19, 20:	2SA1015-GR
• DIODES	
D1, 2:	SVDGERA1502
D4, 6, 7, 9:	SVDS3V20
D11, 12:	MA4180
D13, 14:	EK04
D15～18:	MA165
D19, 20:	MA167
D21～24:	MA165
D25, 26:	MA167
D27～32:	MA165
• FUSES	
F4, 5 **M** **MC** **XM**:	XBA1C20NU100
F4, 5 Others:	XBA2C16TB0
F4, 5 **日本向**:	XBA1C20NS5

P

S:

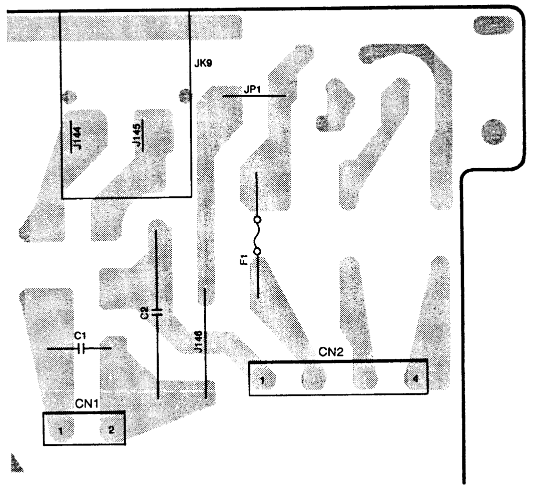
	M5F78M15L
	M5F79M15L
-11:	M5218AL
:	QCPL-260L
NSISTORS	
2:	2SC1815GR
	2SA1015-GR
	2SC1815GR
3:	2SA1015-GR
	2SD592ARS
	2SB621ARS
	2SD592ARS
:	2SB621ARS
:	2SC1815GR
:	2SA1015-GR
:	2SC1815GR
:	2SA1015-GR
:	2SB946P
:	2SD1271P
:	2SB946P
:	2SD1271P
20:	2SA1015-GR
DES	
2:	SVDGERA1502
3, 7, 9:	SVDS3V20
12:	MA4180
14:	EK04
~18:	MA165
20:	MA167
~24:	MA165
26:	MA167
~32:	MA165
ES	
5 **M** **MC** **XM**:	XBA1C20NU100
5 Others:	XBA2C16TB0
5 **日本向**:	XBA1C20NS5

X **XS** **XD** **XT** **XR**


JK9
J144
J145
J172
SW1
F1
F3
F2
C1
C2
J146
CN2
CN1
1
2
4

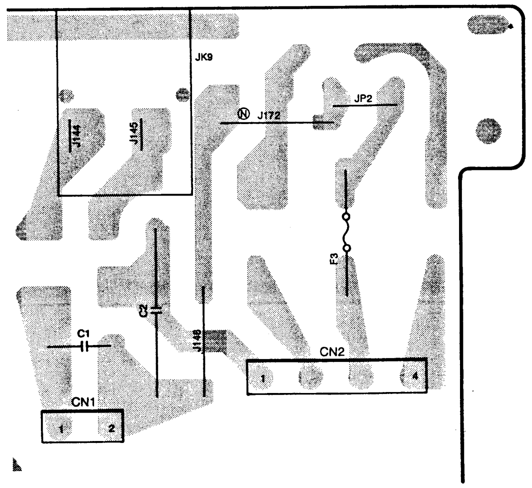
NOTE:
- FUSES
  F1: XBA2C16TB0
  F2, 3: XBA2C10TB0

M **MC** **XM** **日本向**


JK9
JP1
J144
J145
F1
C1
C2
J146
CN2
CN1
1
2
4

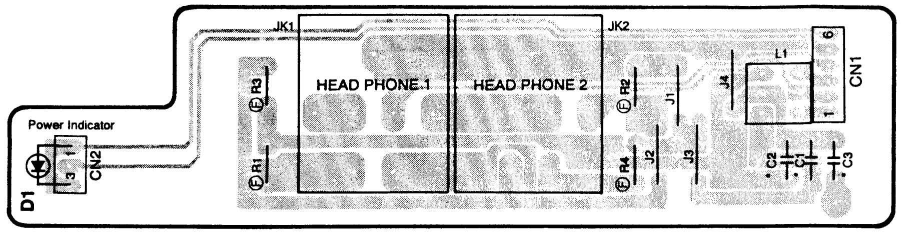
NOTE:
- FUSE
  F1 **M** **MC** **XM**: XBA1C40NU100
  F1 **日本向**: XBA1C20NS5

XL **Others**


JK9
J144
J145
J172
JP2
F3
C1
C2
J146
CN2
CN1
1
2
4

NOTE:
- FUSE
  F3: XBA2C10TB0

HP (SXPG224311)


JK1
JK2
HEAD PHONE 1
HEAD PHONE 2
Power Indicator
D1
CN2
1
3
R1
R2
R3
R4
J1
J2
J3
J4
L1
CN1
6
1
C1
C2
C3

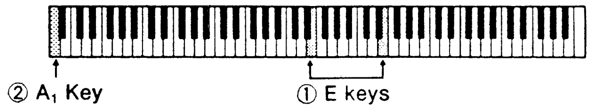
HP

NOTE:
- DIDOE
  D1: SEL4214RLC05

■ Measuring Condition ■ 波形の測定条件

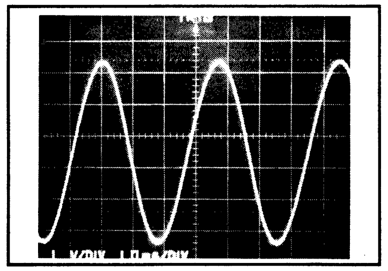
Check Point ❸~❺
Set to the self-diagnostic mode followings.
- While pressing two E keys (①) simultaneously, turn on the power switch.

次のように自己診断モードに設定してください。
- 2 つの E キー（①）を同時に押しながら、電源スイッチをオンする。
- SOUND .... GRAND PIANO
- Main Volume................................ Center
- Keyboard .... A_1 (②)

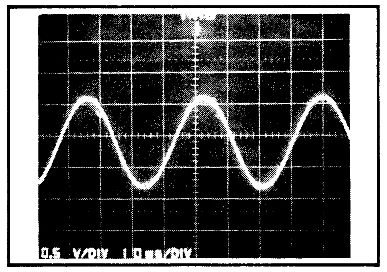

② A₁ Key
① E keys

Check Point ❶, ❷
Set the initial setting mode (Refer to page Ⅰ-6)
チェックポイント ❶、❷
イニシャルセッティングを行ってください。（Ⅰ-6 ページ参照）

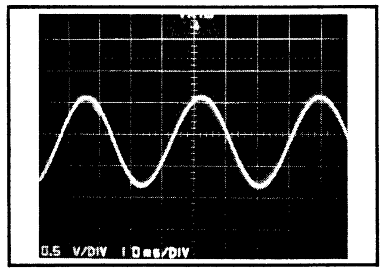
SPL, SPR



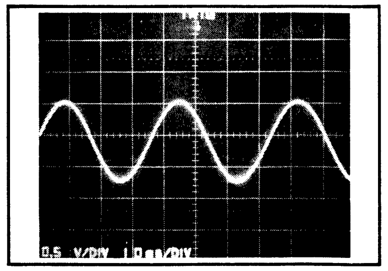
EQINL, EQINR



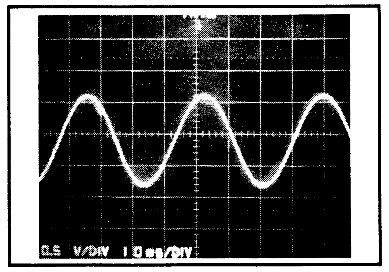
SUML, SUMR



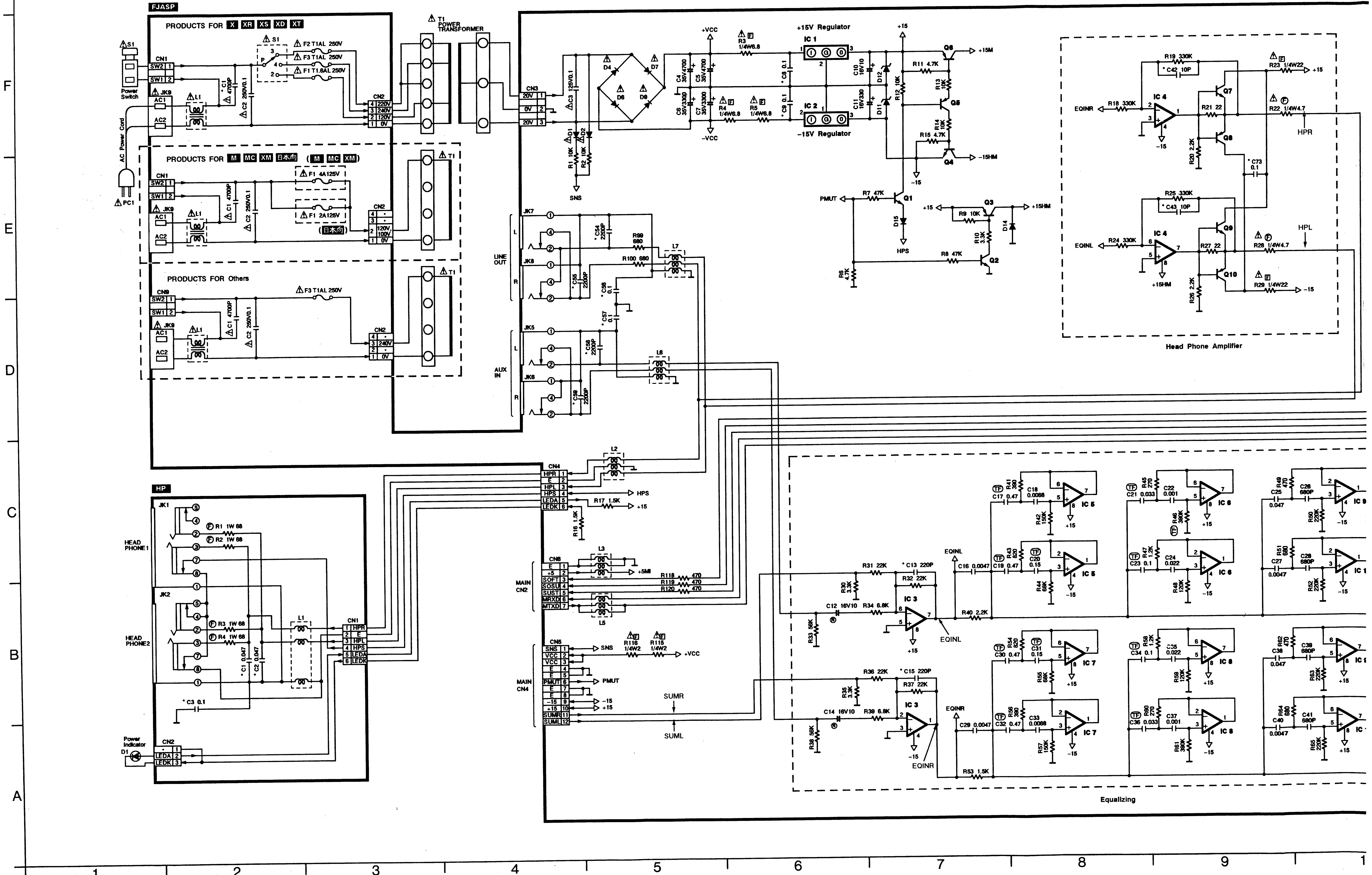
PINL, PINR

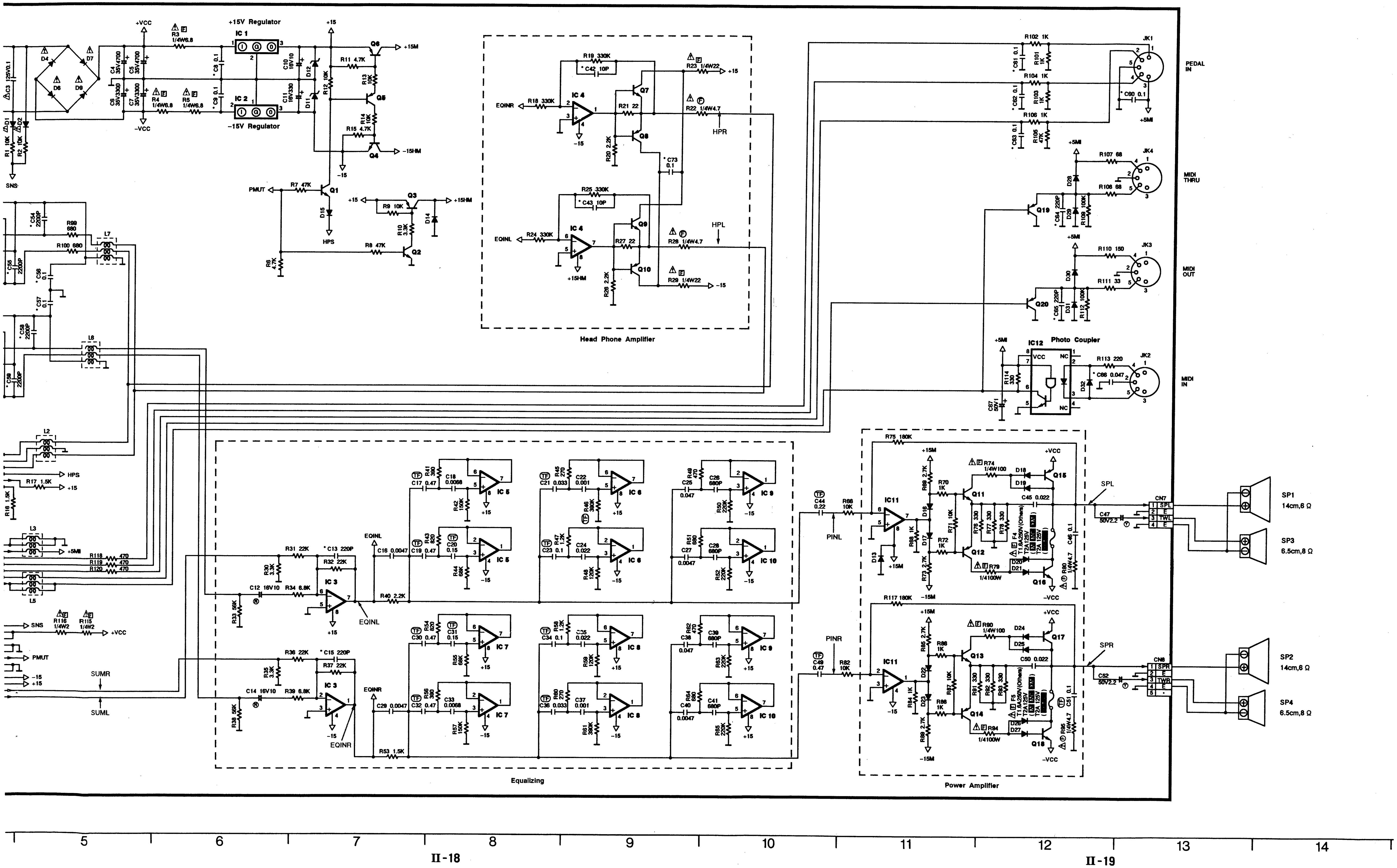


HPL, HPR



FJASP/HP P.C. Diagram


FJASP
PRODUCTS FOR X XR XS XD XT
S1
Power Switch
AC Power Cord
PC1
CN1
SW2
SW1
JK9
AC1
AC2
L1
C1 4700P
C2 250V0.1
F2 T1AL 250V
F3 T1AL 250V
F1 T1.6AL 250V
CN2
220V
240V
120V
0V
T1 POWER TRANSFORMER
PRODUCTS FOR M MC XM 日本向 (M MC XM)
F1 4A125V
F1 2A125V
(日本向)
PRODUCTS FOR Others
F3 T1AL 250V
CN3
20V
0V
D4
D7
D6
D9
D1
D2
R1 10K
R2 10K
SNS
+VCC
-VCC
C4 35V4700
C5 35V4700
C6 35V3300
C7 35V3300
R3 1/4W6.8
R4 1/4W6.8
R5 1/4W6.8
+15V Regulator
-15V Regulator
IC 1
IC 2
C8 0.1
C9 0.1
C10 16V10
C11 16V330
D11
D12
R11 4.7K
R12 10K
R13 10K
R14 10K
R15 4.7K
Q5
Q6
Q4
+15M
-15HM
+15
-15
PMUT
R7 47K
Q1
D15
HPS
R9 10K
Q3
+15HM
R10 3.3K
D14
R8 47K
Q2
R6 4.7K
Head Phone Amplifier
R19 330K
C42 10P
IC 4
EQINR
R18 330K
R21 22
Q7
Q8
R20 2.2K
R23 1/4W22
R22 1/4W4.7
HPR
C73 0.1
R25 330K
C43 10P
EQINL
R24 330K
R27 22
Q9
Q10
R26 2.2K
R28 1/4W4.7
HPL
R29 1/4W22
LINE OUT
JK7
JK8
C54 2200P
C55 2200P
R99 680
R100 680
L7
C56 0.1
C57 0.1
AUX IN
JK5
JK6
C58 2200P
C59 2200P
L6
L2
CN4
HPR
E
HPL
HPS
LEDA
LEDK
R17 1.5K
R16 1.5K
MAIN CN2
CN6
+5
SOFT
SOSU
SUST
MRXD
MTXD
L3
L5
+5MI
R118 470
R119 470
R120 470
MAIN CN4
CN5
SNS
VCC
PMUT
SUMR
SUML
R116 1/4W2
R115 1/4W2
HP
JK1
HEAD PHONE1
R1 1W 68
R2 1W 68
JK2
HEAD PHONE2
R3 1W 68
R4 1W 68
C1 0.047
C2 0.047
C3 0.1
Power Indicator
D1
CN2
Equalizing
R31 22K
C13 220P
R32 22K
R30 3.3K
IC 3
C12 16V10
R34 6.8K
R33 56K
R40 2.2K
EQINL
R36 22K
C15 220P
R37 22K
R35 3.3K
C14 16V10
R39 6.8K
R38 56K
EQINR
R53 1.5K
C16 0.0047
C29 0.0047
IC 5
IC 6
IC 7
IC 8
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9


+15V Regulator
IC 1
IC 2
-15V Regulator
+VCC
-VCC
+15
-15
+15M
-15HM
+15HM
SNS
PMUT
HPS
Q1
Q2
Q3
Q4
Q5
Q6
D4
D6
D7
D9
D14
D15
R3 1/4W6.8
R4 1/4W6.8
R5 1/4W6.8
R7 47K
R8 47K
R9 10K
R11 4.7K
R15 4.7K
Head Phone Amplifier
IC 4
EQINR
EQINL
R19 330K
C42 10P
R18 330K
R25 330K
C43 10P
R24 330K
R21 22
R27 22
R22 1/4W4.7
R23 1/4W22
R28 1/4W4.7
R29 1/4W22
Q7
Q8
Q9
Q10
HPR
HPL
C73 0.1
PEDAL IN
MIDI THRU
MIDI OUT
MIDI IN
JK1
JK2
JK3
JK4
+5MI
R102 1K
R104 1K
R106 1K
R107 68
R108 68
R110 150
R111 33
R113 220
Q19
Q20
IC12
Photo Coupler
VCC
NC
L2
L3
L5
L6
L7
R17 1.5K
R16 1.5K
R99 680
R100 680
R116 1/4W2
R115 1/4W2
R118 470
R119 470
R120 470
SUMR
SUML
Equalizing
IC 3
IC 5
IC 6
IC 7
IC 8
IC 9
IC 10
EQINL
EQINR
R31 22K
R32 22K
C13 220P
R34 6.8K
R36 22K
R37 22K
C15 220P
R39 6.8K
C12 16V10
C14 16V10
R40 2.2K
R53 1.5K
Power Amplifier
IC11
PINL
PINR
R75 180K
R117 180K
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
R74 1/4W100
R79 1/4100W
R90 1/4W100
R94 1/4100W
C45 0.022
C50 0.022
C47 50V2.2
C52 50V2.2
SPL
SPR
CN7
CN8
SPL
E
TWL
SPR
TWR
SP1 14cm,6 Ω
SP3 6.5cm,8 Ω
SP2 14cm,6 Ω
SP4 6.5cm,8 Ω
5
6
7
8
9
10
11
12
13
14

CP/PKB P.C. Board

F

E

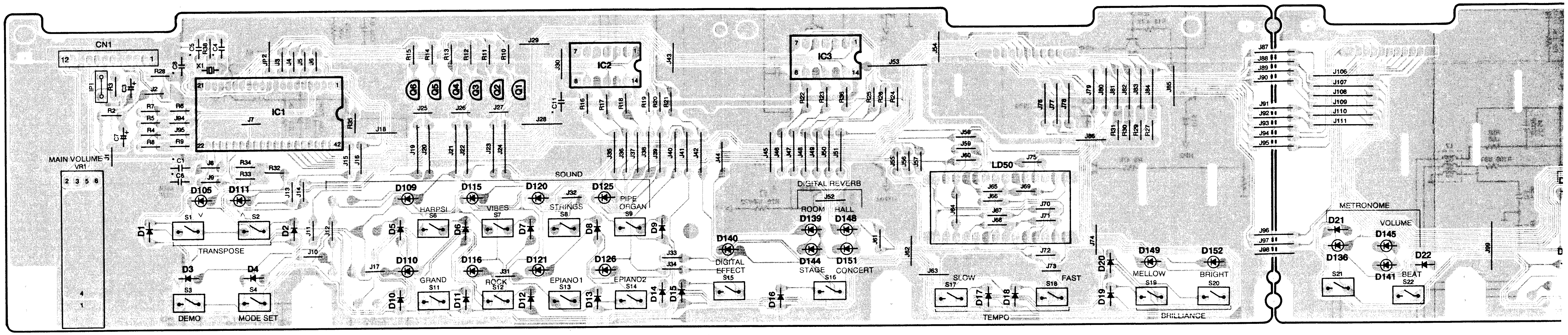
D

C

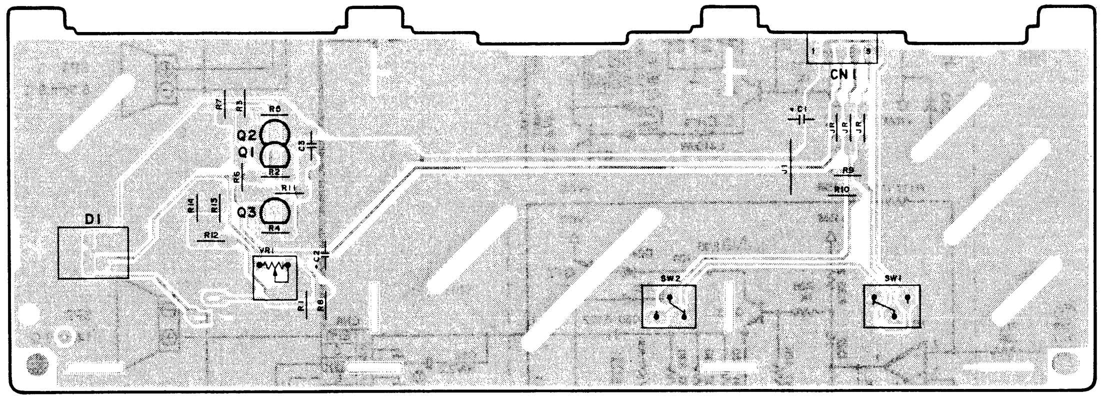
B

A

CP (SXPG224241)


CN1
IC1
IC2
IC3
LD50
MAIN VOLUME
VR1
SOUND
TRANSPOSE
DEMO
MODE SET
HARPSI
VIBES
STRINGS
PIPE ORGAN
GRAND
ROCK
EPIANO1
EPIANO2
DIGITAL REVERB
ROOM
HALL
DIGITAL EFFECT
STAGE
CONCERT
SLOW
FAST
TEMPO
MELLOW
BRIGHT
BRILLIANCE
METRONOME
VOLUME
BEAT
D105
D111
D109
D115
D120
D125
D110
D116
D121
D126
D139
D148
D140
D144
D151
D149
D152
D21
D136
D145
D141
D22
S1
S2
S3
S4
S6
S7
S8
S9
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
Q1
Q2
Q3
Q4
Q5
Q6

PKB (SXPG218211)

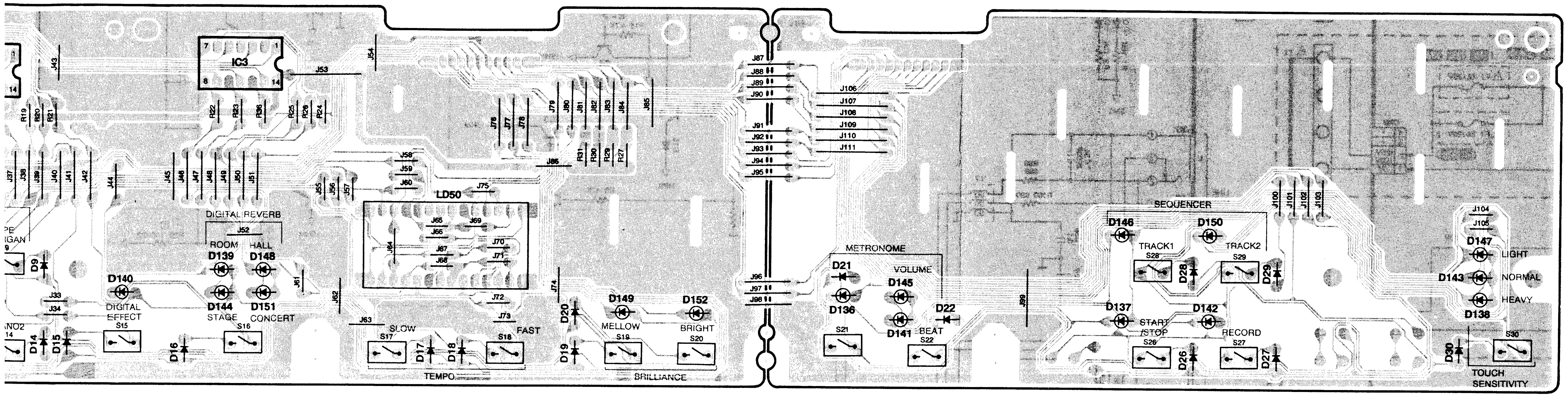

CN1
Q1
Q2
Q3
D1
VR1
SW1
SW2

PKB

NOTES:

- TRANSISTORS
  - Q1, 2: 2SC1815GR
  - Q3: 2SA1015-GR
- DIODES
  - D1: GP2S24BC

1 2 3 4 5 6 7 8 9 10


IC3
J43
J53
J54
R19
R20
R21
R22
R23
R36
R25
R26
R24
J37
J38
J39
J40
J41
J42
J44
J45
J46
J47
J48
J49
J50
J51
J55
J56
J57
J58
J59
J60
J75
LD50
J52
J65
J66
J67
J68
J69
J70
J71
J72
J73
J64
J76
J77
J78
J79
J80
J81
J82
J83
J84
J85
J86
R31
R30
R29
R27
DIGITAL REVERB
ROOM
HALL
D139
D148
D140
D144
D151
DIGITAL
EFFECT
STAGE
CONCERT
J33
J34
J61
J62
J63
SLOW
FAST
S15
S16
S17
S18
D9
D14
D15
D16
D17
D18
TEMPO
J74
D20
D19
D149
D152
MELLOW
BRIGHT
S19
S20
BRILLIANCE
J87
J88
J89
J90
J91
J92
J93
J94
J95
J96
J97
J98
J106
J107
J108
J109
J110
J111
METRONOME
D21
VOLUME
D145
D136
D22
D141
BEAT
S21
S22
J99
SEQUENCER
D146
D150
TRACK1
TRACK2
S28
S29
D28
D29
D137
D142
START
/STOP
RECORD
S26
S27
D26
D27
J100
J101
J102
J103
J104
J105
D147
LIGHT
D143
NORMAL
HEAVY
D138
D30
S30
TOUCH
SENSITIVITY

CP

NOTES:

- IC'S
  IC1: M37471M2196S
  IC2, 3: HD74LS07P
- TRANSISTORS
  Q1~5: 2SA830SB
  Q6: 2SA1015-GR
- DIODES
  D1~22, 26~30: MA165
  D105, 109~111, 115, 116, 120, 121, 125, 126, 136~152: LN282R

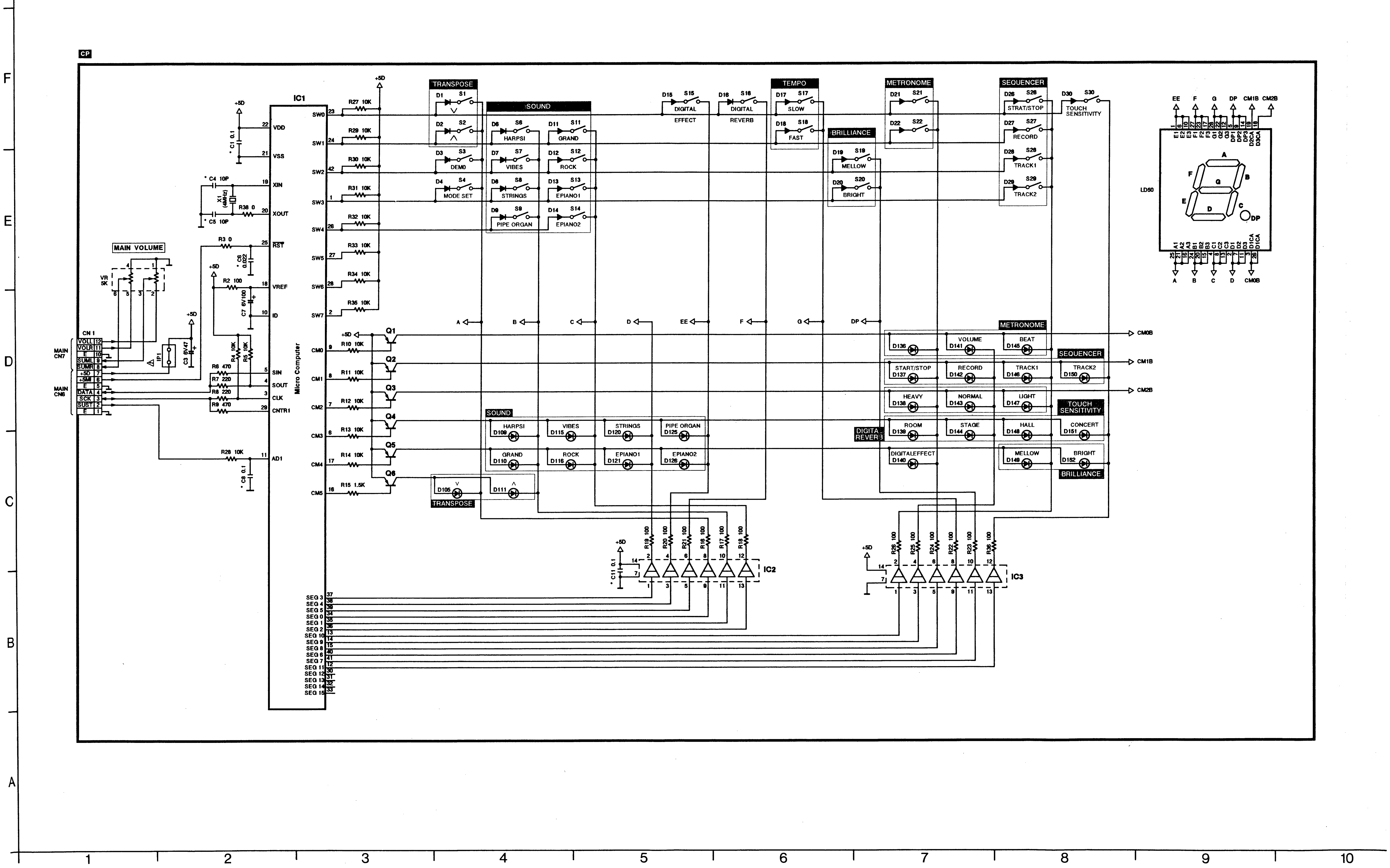
PKB

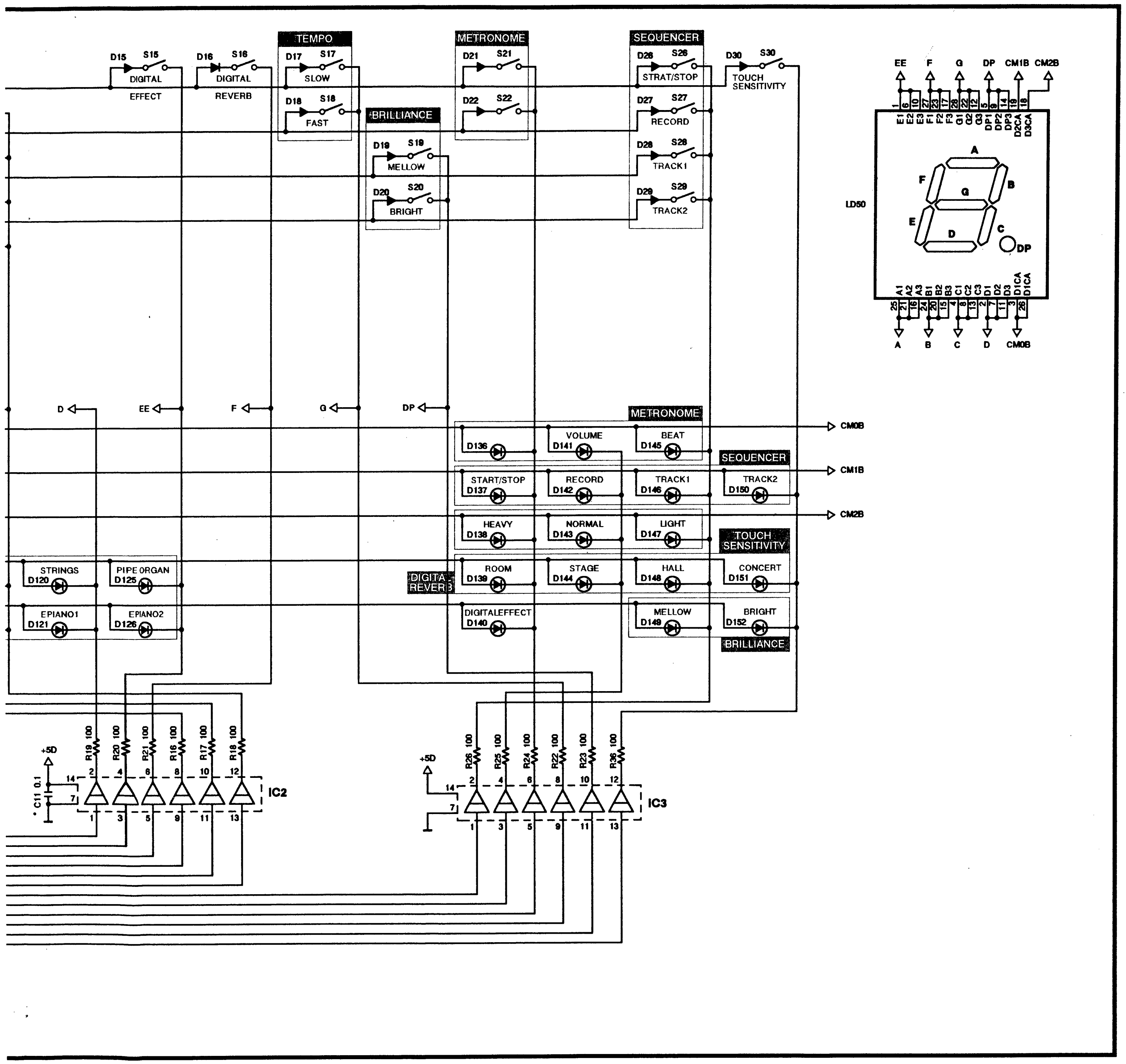
NOTES:

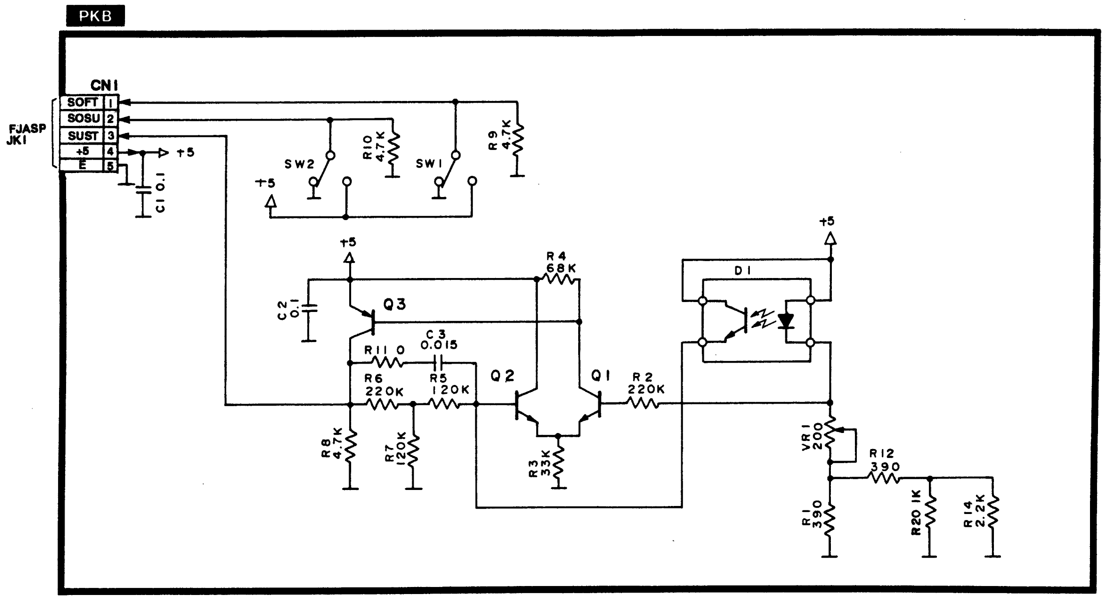
- TRANSISTORS
  Q1, 2: 2SC1815GR
  Q3: 2SA1015-GR
- DIODES
  D1: GP2S24BC

5 6 7 8 9 10 11 12 13 14

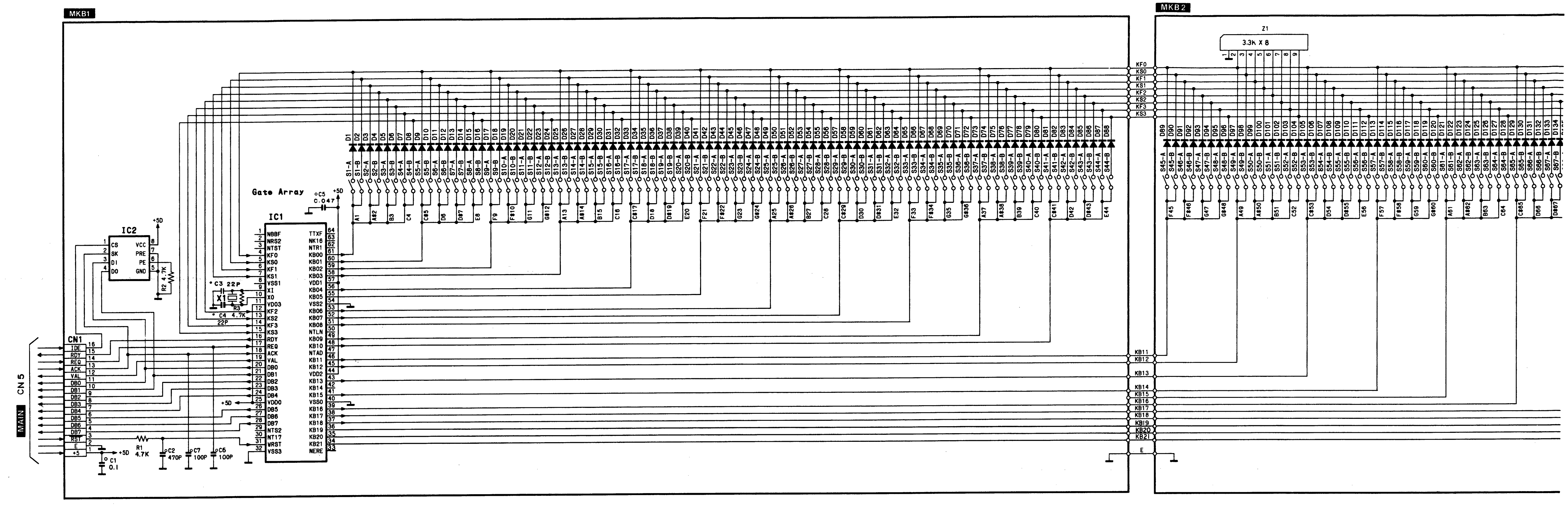
CP/PKB P.C. Diagram


CP
IC1
Micro Computer
VDD
VSS
XIN
XOUT
RST
VREF
ID
SIN
SOUT
CLK
CNTR1
AD1
SW0
SW1
SW2
SW3
SW4
SW5
SW6
SW7
CM0
CM1
CM2
CM3
CM4
CM5
SEG 3
SEG 4
SEG 5
SEG 0
SEG 1
SEG 2
SEG 10
SEG 9
SEG 8
SEG 6
SEG 7
SEG 11
SEG 12
SEG 13
SEG 14
SEG 15
MAIN VOLUME
VR 5K
CN1
MAIN CN7
MAIN CN6
VOLL
VOLR
E
SUML
SUMR
+5D
+5MI
DATA
SCK
SUST
JP1
C3 6V47
C1 0.1
C4 10P
C5 10P
X1 (4MHz)
R38 0
R3 0
C6 0.022
R2 100
C7 6V100
R4 10K
R5 10K
R6 470
R7 220
R8 220
R9 470
R28 10K
C8 0.1
R27 10K
R29 10K
R30 10K
R31 10K
R32 10K
R33 10K
R34 10K
R35 10K
R10 10K
R11 10K
R12 10K
R13 10K
R14 10K
R15 1.5K
Q1
Q2
Q3
Q4
Q5
Q6
TRANSPOSE
D1 S1
D2 S2
D3 S3 DEMO
D4 S4 MODE SET
SOUND
D5 S5 HARPSI
D6 S6 HARPSI
D7 S7 VIBES
D8 S8 STRINGS
D9 S9 PIPE ORGAN
D11 S11 GRAND
D12 S12 ROCK
D13 S13 EPIANO1
D14 S14 EPIANO2
D15 S15 DIGITAL EFFECT
D16 S16 DIGITAL REVERB
TEMPO
D17 S17 SLOW
D18 S18 FAST
BRILLIANCE
D19 S19 MELLOW
D20 S20 BRIGHT
METRONOME
D21 S21
D22 S22
SEQUENCER
D26 S26 STRAT/STOP
D27 S27 RECORD
D28 S28 TRACK1
D29 S29 TRACK2
D30 S30 TOUCH SENSITIVITY
A
B
C
D
EE
F
G
DP
CM0B
CM1B
CM2B
LD50
VOLUME D141
BEAT D145
D136
START/STOP D137
RECORD D142
TRACK1 D146
TRACK2 D150
HEAVY D138
NORMAL D143
LIGHT D147
TOUCH SENSITIVITY
DIGITAL REVERB
ROOM D139
STAGE D144
HALL D148
CONCERT D151
DIGITALEFFECT D140
MELLOW D149
BRIGHT D152
HARPSI D109
VIBES D115
STRINGS D120
PIPE ORGAN D125
GRAND D110
ROCK D116
EPIANO1 D121
EPIANO2 D126
D105
D111
R19 100
R20 100
R21 100
R16 100
R17 100
R18 100
C11 0.1
IC2
R26 100
R25 100
R24 100
R22 100
R23 100
R36 100
IC3
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

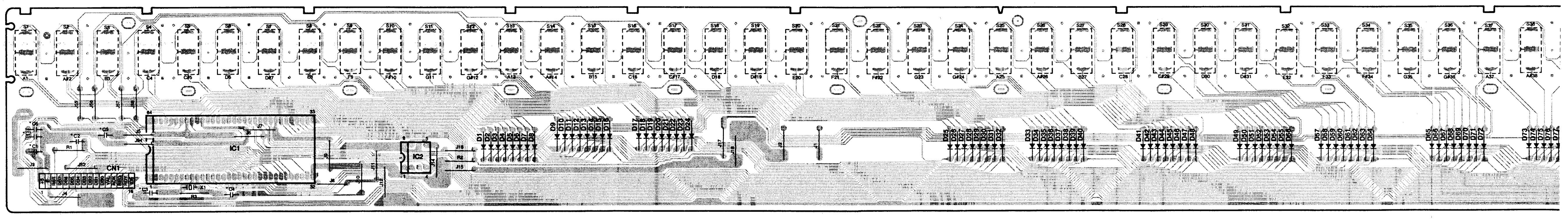

D15 S15
DIGITAL
EFFECT
D16 S16
DIGITAL
REVERB
TEMPO
D17 S17
SLOW
D18 S18
FAST
BRILLIANCE
D19 S19
MELLOW
D20 S20
BRIGHT
METRONOME
D21 S21
D22 S22
SEQUENCER
D26 S26
STRAT/STOP
D27 S27
RECORD
D28 S28
TRACK1
D29 S29
TRACK2
D30 S30
TOUCH SENSITIVITY
EE F G DP CM1B CM2B
1 6 10 27 23 17 28 22 12 5 9 14 19 18
E1 E2 E3 F1 F2 F3 G1 G2 G3 DP1 DP2 DP3 D2CA D3CA
LD50
A
B
C
D
E
F
G
DP
A1 A2 A3 B1 B2 B3 C1 C2 C3 D1 D2 D3 D1CA D1CA
25 21 16 24 20 15 4 8 13 2 7 11 3 26
A B C D CM0B
D
EE
F
G
DP
METRONOME
CM0B
D136
VOLUME
D141
BEAT
D145
SEQUENCER
CM1B
START/STOP
D137
RECORD
D142
TRACK1
D146
TRACK2
D150
CM2B
HEAVY
D138
NORMAL
D143
LIGHT
D147
TOUCH SENSITIVITY
STRINGS
D120
PIPE ORGAN
D125
DIGITAL REVERB
ROOM
D139
STAGE
D144
HALL
D148
CONCERT
D151
EPIANO1
D121
EPIANO2
D126
DIGITALEFFECT
D140
MELLOW
D149
BRIGHT
D152
BRILLIANCE
+5D
C11 0.1
R19 100
R20 100
R21 100
R16 100
R17 100
R18 100
14 2 4 6 8 10 12
7 1 3 5 9 11 13
IC2
+5D
R26 100
R25 100
R24 100
R22 100
R23 100
R36 100
14 2 4 6 8 10 12
7 1 3 5 9 11 13
IC3


PKB
CN1
FJASP JK1
SOFT 1
SOSU 2
SUST 3
+5 4
E 5
+5
C1 0.1
SW2
+5
R10 4.7K
SW1
R9 4.7K
+5
C2 0.1
Q3
R4 68K
R11 0
C3 0.015
R6 220K
R5 120K
Q2
Q1
R2 220K
D1
+5
R8 4.7K
R7 120K
R3 33K
VR1 200
R12 390
R1 390
R20 1K
R14 2.2K

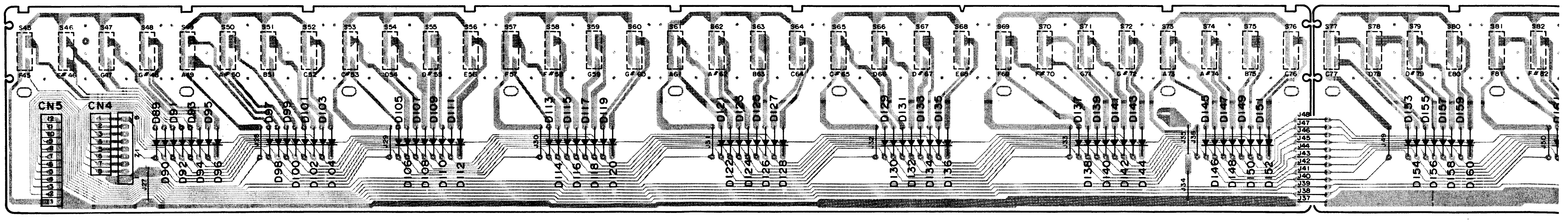
MKB1/2


MKB1
MKB2
IC1
Gate Array
IC2
CN1
CN5
MAIN
Z1
3.3K X 8
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
KB11
KB12
KB13
KB14
KB15
KB16
KB17
KB18
KB19
KB20
KB21
E

MKB1 (SXPG209751A)

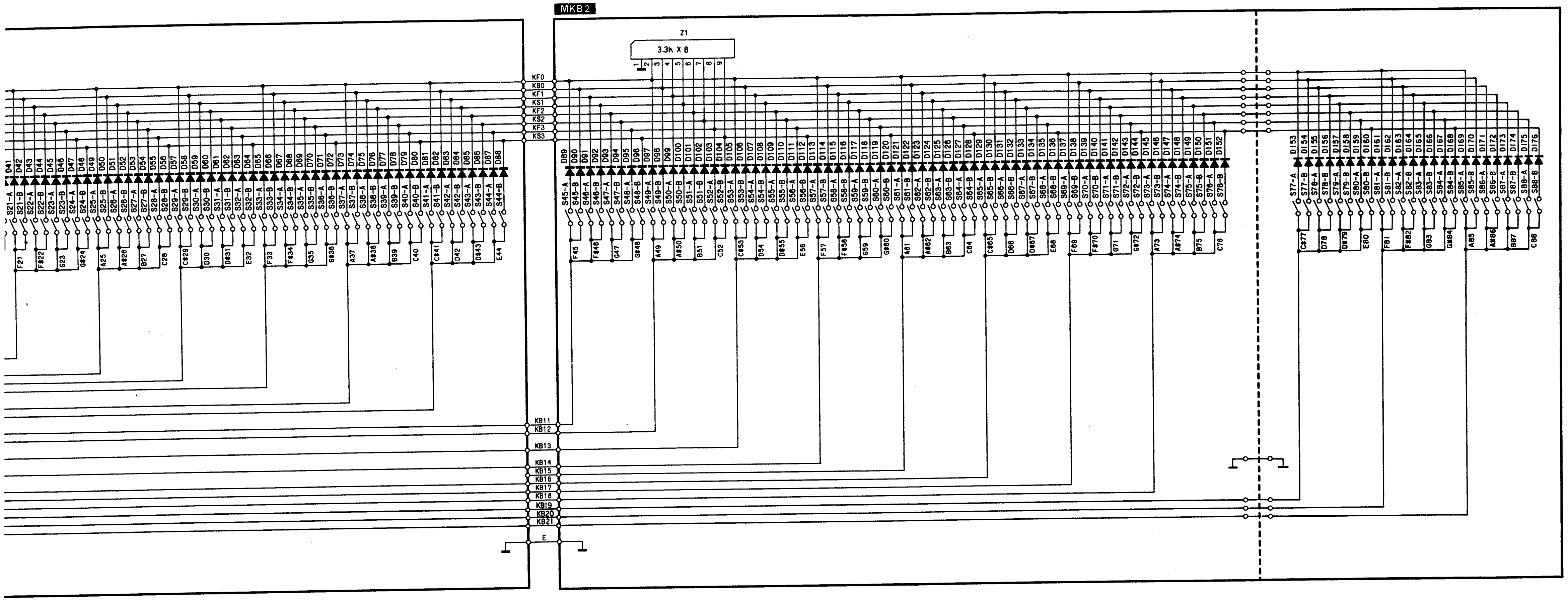


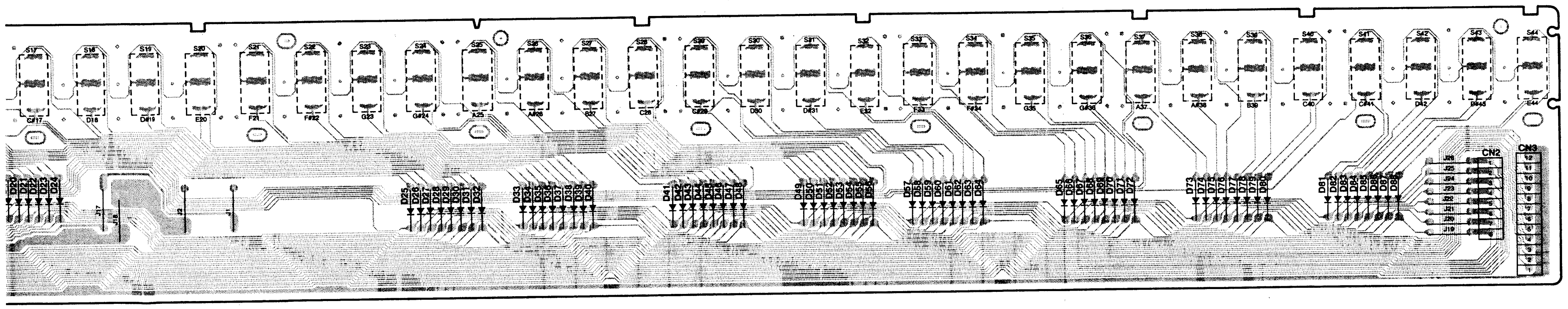
MKB2 (SXPG209751B)



F
E
D
C
B
A

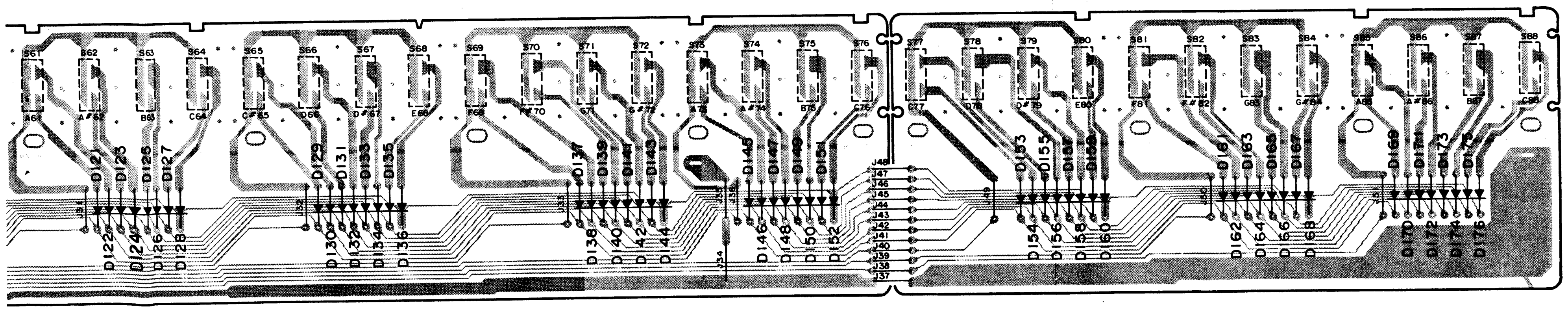
1 2 3 4 5 6 7 8 9 10


MKB2
Z1
3.3k X 8
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
KB11
KB12
KB13
KB14
KB15
KB16
KB17
KB18
KB19
KB20
KB21
E



MKB1

NOTES:
- IC'S
  IC1: MSM7U042016
  IC2: ST93C46CB1
- DIODES
  D1～88: MA165



MKB2

NOTE:
- DIODES
  D89～176: MA165

REPLACEMENT PARTS LIST......P.C.B. and Wiring Parts

Notes:

1. The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retension period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
   After the end of this period, the assembly will no longer be available.
2. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The "S" mark is service standard parts and may differ from production parts.
4. ○ mark are new parts.
5. For part No. with area mark, check the area when placing an order.

■ PRINTED CIRCUIT BOARD

	RTL	Area	Part No.	Description	P/S
○	RTL		SXPG224041	MAIN	1
○	RTL	EN EK EZ EW EF EA EH EP XP	SXPG224421A	FJASP	1
○	RTL	M MC XM	SXPG224431A	FJASP	1
○	RTL	X XS XD XT	SXPG224461A	FJASP	1
○	RTL	XL	SXPG224441A	FJASP	1
○	RTL	XR	SXPG224451A	FJASP	1
○	RTL		SXPG224241	CP	1
○	RTL		SXPG224311	HP	1
	RTL		SXPG209751A	MKB1	1
	RTL		SXPG209751B	MKB2	1
	RTL		SXPG218211	PKB	1

MAIN MAIN CIRCUIT

	Ref. No.	Part No.	Description	P/S
		INTEGRATED CIRCUITS		
	IC1	D70236AGD10	Microcomputer	1
	IC2	D65046GD188	Gate Array	1
○	IC4	QSIGCX207AX	4M bit Programmed EP ROM	1
S	IC4-1	[M27C400210F1	(Blank ROM)	1
○	IC6	QSIGH3C16DK9	16M bit Programmed ROM	1
	IC7	LH52B256N7LL	256K bit Static RAM	1
○	IC8	QSIGH3C16DL1	16M bit Programmed ROM	1
	IC9	PCM1702U	D-A Converter	1
	IC11	M5218AFP	Operational Amplifier	1
	IC12	D93083GDLBD	Tone Generator LSI	1
	IC14	TC51832AFL85	256K bit Pseudo Static RAM	1
	IC17	PCM1702U	D-A Converter	1
○	IC19	QSIGH3C16DL0	16M bit Programmed ROM	1
	IC23	TC7S00F	NAND GATES	1
		TRANSISTORS		
	Q1	2SB709AR	Transistor	1
S	Q2, 3	2SC1815GR	Transistor	2
S	Q4	2SA1015-GR	2SA933STRS (SUB. Part)	1
	Q5	2SB941P	Transistor	1
	Q8	2SD601AQ	Transistor	1
		DIODES		
	D1	MA165	Diode	1
○	D2	MA4047H	Zener, 4.7V	1
	D3	MA165	Diode	1
	D4	MA4030	Zener, 3.0V	1
	D8	MA2062LF	Zener, 6.2V	1
S	D9	MA162A	MA150IR (SUB. Part)	1
	D10~12	MA165	Diode	3
S	D13	MA162A	MA150IR (SUB. Part)	1
	D14	EK04	Diode	1
	D15, 16	MA4062	Zener, 6.2V	2
		OSCILLATORS		
	X1	SVQGA20MX040	20MHz, Ceramic Oscillator	1
	X2	QSXG1I4915A	49MHz, Quartz Oscillator	1
		COMPONENT COMBINATIONS		
	Z1, 2	EXBS8V101J	100Ω × 4	2
	Z3	EXBV8V101J	100Ω × 4	1
	Z5	EXBV8V102J	1kΩ × 4	1
	Z6~13, 16	EXBV8V221J	220Ω × 4	9
	Z18	EXBV8V101J	100Ω × 4	1
	Z19	EXBV8V221J	220Ω × 4	1
	Z29, 30	EXBV8V101J	100Ω × 4	2
	Z34, 35	EXBV8VR000V	0Ω × 4	2
	Z43	EXBV8V103J	10kΩ × 4	1
		COIL		
	L1	QLCGTJR10KA	Coil	1
		RESISTORS		
	R1	ERJ6GEYJ224V	220kΩ	1
	R2	ERJ6GEYJ101V	100Ω	1
	R3, 4	ERJ6GEYJ471V	470Ω	2
	R5	ERJ6GEYJ101V	100Ω	1
	R6	ERJ6GEYJ471V	470Ω	1
	R8	ERJ6GEYJ221V	220Ω	1
	R9~13	ERJ6GEYJ471V	470Ω	5
	R14	ERJ6GEYJ221V	220Ω	1
	R15	ERJ6GEYJ103V	10kΩ	1
	R16	ERJ6GEYJ471V	470Ω	1
	R17	ERJ6GEYJ103V	10kΩ	1
	R18	ERJ6GEYJ222V	2.2kΩ	1
	R19	ERJ6GEYJ102V	1kΩ	1
	R20	ERJ6GEYJ334V	330kΩ	1
	R21	ERJ6GEYJ103V	10kΩ	1
	R24	ERJ6GEYJ102V	1kΩ	1
	R26	ERJ6GEYJ102V	1kΩ	1
	R27	ERJ6GEYJ681V	680Ω	1
	R28	ERJ6GEYJ221V	220Ω	1
	R29	ERJ6GEYJ223V	22kΩ	1
	R30	ERJ6GEYJ223V	22kΩ	1

Ref. No.	Part No.	Description	P/S
R31	ERJ6GEYJ223V	22kΩ	1
R32	ERJ6GEYJ221V	220Ω	1
R33	ERJ6GEYJ102V	1kΩ	1
R34~36	ERJ6GEYJ221V	220Ω	3
R37	ERJ6GEYJ151V	150Ω	1
R38, 39	ERJ6GEY0R00V	0Ω	2
R40	ERJ6GEYJ103V	10kΩ	1
R43, 44	ERJ6GEYJ223V	22kΩ	2
R45	ERJ6GEYJ151V	150Ω	1
R53	ERJ6GEYJ103V	10kΩ	1
R54	ERJ6GEYJ471V	470Ω	1
R55	ERJ6GEYJ221V	220Ω	1
R56	ERJ6GEYJ102V	1kΩ	1
R57	ERJ6GEYJ331V	330Ω	1
R58	ERJ6GEYJ221V	220Ω	1
R59	ERJ6GEYJ471V	470Ω	1
R60	ERJ6GEYJ103V	10kΩ	1
R65	ERJ6GEY0R00V	0Ω	1
R67	ERJ6GEYJ103V	10kΩ	1
R71	ERJ6GEYJ101V	100Ω	1
R73	ERJ6GEYJ103V	10kΩ	1
R77	ERJ6GEYJ102V	1kΩ	1
R78	ERJ6GEY0R00V	0Ω	1
R79	ERJ6GEYJ104V	100kΩ	1
R85	ERJ6GEYJ101V	100Ω	1
R90, 93	ERJ6GEYJ332V	3.3kΩ	2
R95, 98	ERJ6GEYJ223V	22kΩ	2
R99	ERJ6GEY0R00V	0Ω	1
R100	ERJ6GEYJ104V	100kΩ	1
R103	ERJ6GEYJ331V	330Ω	1
R105	ERJ6GEYJ471V	470Ω	1
R121~123	ERJ6GEY0R00V	0Ω	3
R126	ERJ6GEYJ103V	10kΩ	1
R128	ERJ6GEY0R00V	0Ω	1
CAPACITORS			
C1	ECUV1H104ZFX	0.1μF	1
C4	ECUV1H100DCN	10pF	1
C5	ECQV1H104JM	0.1μF	1
C7	ECRF1H104ZF	0.1μF	1
C8	ECUV1H104ZFX	0.1μF	1
C9, 10	ECUV1H100DCN	10pF	2
C11	ECUV1H104ZFX	0.1μF	1
C12	ECEA0JU102	1000μF, 6.3V	1
C14	ECUV1H104ZFX	0.1μF	1
C15	ECRF1H104ZF	0.1μF	1
C16	FM0H473Z	0.04μF, 5.5V	1
C18, 19	ECUV1H104ZFX	0.1μF	2
C21, 29	ECUV1H104ZFX	0.1μF	2
C33	ECEA1VU470	47μF, 35V	1
C34	ECRF1H104ZF	0.1μF	1
C35, 36	ECUV1H104ZFX	0.1μF	2
C38	ECUV1H104ZFX	0.1μF	1
C39	ECUV1H101JG	100pF	1
C40, 41	ECUV1H104ZFX	0.1μF	2
C42	ECRF1H104ZF	0.1μF	1
C43~46	ECUV1H104ZFX	0.1μF	4
C48	ECRF1H104ZF	0.1μF	1
C51, 52	ECUV1H104ZFX	0.1μF	2
C53	ECUV1H331JG	330pF	1
C54	ECQB1H103JF	0.01μF	1
C58	ECUV1H331JG	330pF	1
C59, 60, 62~64	ECUV1H104ZFX	0.1μF	5
C65	ECUV1H102JX	0.001μF	1
C66~68, 70, 71, 77, 79	ECUV1H104ZFX	0.1μF	7
C81	ECQV1H104JM	0.1μF	1

Ref. No.	Part No.	Description	P/S
C84, 86	ECUV1H104ZFX	0.1μF	2
C88	ECEA1CKN100	10μF, 16V	1
C89	ECUV1H104ZFX	0.1μF	1
C90	ECEA1CKN100	10μF, 16V	1
C91	ECUV1H101JG	100pF	1
C92	ECQB1H103JF	0.01μF	1
C93	ECUV1H104ZFX	0.1μF	1
C94	ECRF1H104ZF	0.1μF	1
C95, 97, 99, 100	ECUV1H104ZFX	0.1μF	4
C101	ECUV1H101JG	100pF	1
C102~104	ECUV1H104ZFX	0.1μF	3
C105	ECUV1H100DCN	10pF	1
C106, 109	ECUV1H104ZFX	0.1μF	2

FJASP FILTER, JACK, AMP, POWER SUPPLY CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUITS			
	IC1	M5F78M15L	+15V Voltage Regulator	1
	IC2	M5F79M15L	−15V Voltage Regulator	1
	IC3~11	M5218AL	Operational Amplifier	9
	IC12	QCPL-260L	Photo Coupler	1
	TRANSISTORS			
S	Q1, 2	2SC1815GR	Transistor	2
S	Q3	2SA1015-GR	2SA933STRS (SUB. Part)	1
S	Q4	2SC1815GR	Transistor	1
S	Q5, 6	2SA1015-GR	2SA933STRS (SUB. Part)	2
○	Q7	2SD592ARS	Transistor	1
○	Q8	2SB621ARS	Transistor	1
○	Q9	2SD592ARS	Transistor	1
○	Q10	2SB621ARS	Transistor	1
S	Q11	2SC1815GR	Transistor	1
S	Q12	2SA1015-GR	2SA933STRS (SUB. Part)	1
S	Q13	2SC1815GR	Transistor	1
S	Q14	2SA1015-GR	2SA933STRS (SUB. Part)	1
	Q15	2SB946P	Transistor	1
	Q16	2SD1271P	Transistor	1
	Q17	2SB946P	Transistor	1
	Q18	2SD1271P	Transistor	1
S	Q19, 20	2SA1015-GR	2SA933STRS (SUB. Part)	2
	DIODES			
	D1, 2 ⚠	SVDGERA1502	Rectifier	2
	D4, 6, 7, 9 ⚠	SVDS3V20	Rectifier	4
	D11, 12	MA4180	Zener, 18V	2
	D13, 14	EK04	Diode	2
	D15~18	MA165	Diode	4
	D19, 20	MA167	Diode	2
	D21~24	MA165	Diode	4
	D25, 26	MA167	Diode	2
	D27~32	MA165	Diode	6
	COILS & LINE FILTER			
	L1 ⚠	SLTGLF3	Line Filter	1
	L2, 3, 5~7	QLQGT3T150SA	Coil	5

Ref. No.	Part No.	Description	P/S
		JACKS	
JK1	QJSG007AA	PEDAL IN	1
○ JK2	QJSG016AA	MIDI IN	1
○ JK3	QJSG016AA	MIDI OUT	1
○ JK4	QJSG016AA	MIDI THRU	1
JK5	QJJG003AA	AUX IN L	1
JK6	QJJG003AA	AUX IN R	1
JK7	QJJG003AA	LINE OUT L	1
JK8	QJJG003AA	LINE OUT R	1
JK9 △	SJVD0203B	AC Inlet	1
		SWITCH	
S1 △	SSRG100A	Voltage Selector, X XR XS XD XT	1
		FUSES	
F1 △	XBA1C40NU100	4A, 125V, M MC XM	1
F1 △	XBA2C16TB0	T1.6A, 250V, X XS XD XT XR	1
F2 △	XBA2C10TB0	T1.0A, 250V, X XS XD XT XR	1
F3 △	XBA2C10TB0	T1.0A, 250V, EN EK EZ EW EF EA EH EP XP X XS XD XT XL XR	1
F4, 5 △	XBA2C16TB0	T1.6A, 250V, EN EK EZ EW EF EA EH EP XP X XS XD XT XL XR	1
F4, 5 △	XBA1C20NU100	2A, 125V, M MC XM	1
		RESISTORS	
R1, 2	ERDS2TJ103	10kΩ	2
R3~5 △	ERD2FCVJ6R8	6.8Ω, 1/4W, Fuse Type	3
R6	ERDS2TJ472	4.7kΩ	1
R7, 8	ERDS2TJ473	47kΩ	2
R9	ERDS2TJ103	10kΩ	1
R10	ERDS2TJ332	3.3kΩ	1
R11	ERDS2TJ472	4.7kΩ	1
R12~14	ERDS2TJ103	10kΩ	3
R15	ERDS2TJ472	4.7kΩ	1
R16, 17	ERDS2TJ152	1.5kΩ	2
R18, 19	ERDS2TJ334	330kΩ	2
R20	ERDS2TJ222	2.2kΩ	1
R21	ERDS2TJ220	22Ω	1
○ R22 △	ERD2FCVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
R23 △	ERD2FCVG220	22Ω, 1/4W, Fuse Type	1
R24, 25	ERDS2TJ334	330kΩ	2
R26	ERDS2TJ222	2.2kΩ	1
R27	ERDS2TJ220	22Ω	1
○ R28 △	ERD2FCVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
R29 △	ERD2FCVG220	22Ω, 1/4W, Fuse Type	1
R30	ERDS2TJ332	3.3kΩ	1
R31, 32	ERDS2TJ223	22kΩ	2
R33	ERDS2TJ563	56kΩ	1
R34	ERDS2TJ682	6.8kΩ	1
R35	ERDS2TJ332	3.3kΩ	1
R36, 37	ERDS2TJ223	22kΩ	2
R38	ERDS2TJ563	56kΩ	1
R39	ERDS2TJ682	6.8kΩ	1
R40	ERDS2TJ222	2.2kΩ	1
R41	ERDS2TJ391	390Ω	1
R42	ERDS2TJ124	120kΩ	1
R43	ERDS2TJ821	820Ω	1
R44	ERDS2TJ683	68kΩ	1
R45	ERDS2TJ271	270Ω	1
R46	ERDS2TJ394	390kΩ	1
R47	ERDS2TJ102	1kΩ	1
R48	ERDS2TJ124	120kΩ	1
R49	ERDS2TJ471	470Ω	1
R50	ERDS2TJ224	220kΩ	1
R51	ERDS2TJ681	680Ω	1
R52	ERDS2TJ224	220kΩ	1
R53	ERDS2TJ152	1.5kΩ	1
R54	ERDS2TJ821	820Ω	1
R55	ERDS2TJ683	68kΩ	1
R56	ERDS2TJ391	390Ω	1
R57	ERDS2TJ124	120kΩ	1
R58	ERDS2TJ102	1kΩ	1
R59	ERDS2TJ124	120kΩ	1
R60	ERDS2TJ271	270Ω	1
R61	ERDS2TJ394	390kΩ	1
R62	ERDS2TJ471	470Ω	1
R63	ERDS2TJ224	220kΩ	1
R64	ERDS2TJ681	680Ω	1
R65	ERDS2TJ224	220kΩ	1
R66	ERDS2TJ103	10kΩ	1
R68	ERDS2TJ102	1kΩ	1
R69	ERDS2TJ272	2.7kΩ	1
R70	ERDS2TJ102	1kΩ	1
R71	ERDS2TJ103	10kΩ	1
R72	ERDS2TJ102	1kΩ	1
R73	ERDS2TJ272	2.7kΩ	1
R74 △	ERD2FCVG101	100Ω, 1/4W, Fuse Type	1
R75	ERDS2TJ184	180kΩ	1
R76~78	ERDS2TJ331	330Ω	3
R79 △	ERD2FCVG101	100Ω, 1/4W, Fuse Type	1
○ R80 △	ERD2FCVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
R82	ERDS2TJ103	10kΩ	1
R84	ERDS2TJ102	1kΩ	1
R85	ERDS2TJ272	2.7kΩ	1
R86	ERDS2TJ102	1kΩ	1
R87	ERDS2TJ103	10kΩ	1
R88	ERDS2TJ102	1kΩ	1
R89	ERDS2TJ272	2.7kΩ	1
R90 △	ERD2FCVG101	100Ω, 1/4W, Fuse Type	1
R91~93	ERDS2TJ331	330Ω	3
R94 △	ERD2FCVG101	100Ω, 1/4W, Fuse Type	1
○ R95 △	ERD2FCVJ4R7	4.7Ω, 1/4W, Flame-Proof	1
R99, 100	ERDS2TJ681	680Ω	2
R101~104	ERDS2TJ102	1kΩ	4
R105	ERDS2TJ473	47kΩ	1
R106	ERDS2TJ102	1kΩ	1
R107, 108	ERDS2TJ680	68Ω	2
R109	ERDS2TJ104	100kΩ	1
R110	ERDS2TJ151	150Ω	1
R111	ERDS2TJ330	33Ω	1
R112	ERDS2TJ104	100kΩ	1
R113	ERDS2TJ221	220Ω	1
R114	ERDS2TJ331	330Ω	1
R115, 116 △	ERQ14AJ2R0	2Ω, 1/4W, Fuse Type	2
R117	ERDS2TJ184	180kΩ	1
R118~120	ERDS2TJ471	470Ω	3
		CAPACITORS	
C1 △	ECKCVA1472MF	4700pF, Line Capacitor	1
○ C2 △	ECQU2A104MT	0.1μF, 250V, Across the Line Capacitor	1
C3 △	ECQE1A104M6	0.1μF, 125V	1
C4, 5	ECA1VM472	4700μF, 35V	2
C6, 7	ECEA1VU332	3300μF, 35V	2

Ref. No.	Part No.	Description	P/S
C8, 9	ECRF1H104ZF	0.1µF	2
C10	ECEA1CKA100	10µF, 16V	1
C11	ECEA1CU331	330µF, 16V	1
C12	ECEA1CKN100	10µF, 16V	1
C13	ECCR1H221J	220pF	1
C14	ECEA1CKN100	10µF, 16V	1
C15	ECCR1H221J	220pF	1
C16	ECQG1H472KZ	0.0047µF	1
C17	ECQV1H474JM	0.47µF	1
C18	ECQG1H682KZ	0.0068µF	1
C19	ECQV1H334JM	0.33µF	1
C20	ECQV1H154JM	0.15µF	1
C21	ECQV1H224JM	0.22µF	1
C22	ECQG1H102KZ	0.001µF	1
C23	ECQV1H334JM	0.33µF	1
C24	ECQB1H223JF	0.022µF	1
C25	ECQB1H473JF	0.047µF	1
C26	ECUV1H681JG	680pF	1
C27	ECQG1H472KZ	0.0047µF	1
C28	ECUV1H681JG	680pF	1
C29	ECQG1H472KZ	0.0047µF	1
C30	ECQV1H334JM	0.33µF	1
C31	ECQV1H154JM	0.15µF	1
C32	ECQV1H474JM	0.47µF	1
C33	ECQG1H682KZ	0.0068µF	1
C34	ECQV1H334JM	0.33µF	1
C35	ECQB1H223JF	0.022µF	1
C36	ECQV1H224JM	0.22µF	1
C37	ECQG1H102KZ	0.001µF	1
C38	ECQB1H473JF	0.047µF	1
C39	ECUV1H681JG	680pF	1
C40	ECQG1H472KZ	0.047µF	1
C41	ECUV1H681JG	680pF	1
C42, 43	ECCR1H100D	10pF	2
C44	ECQV1H224JM	0.22µF	1
C45	ECQB1H223JF	0.022µF	1
C46	ECQV1H104JM	0.1µF	1
C47	ECEA50Y2R2	2.2µF, 50V	1
C49	ECQV1H684JM	0.68µF	1
C50	ECQB1H223JF	0.022µF	1
C51	ECQV1H104JM	0.1µF	1
C52	ECEA50Y2R2	2.2µF, 50V	1
C54, 55	ECBA1C222MR	0.0022µF	2
C56, 57	ECRF1H104ZF	0.1µF	2
C58, 59	ECBA1C222MR	0.0022µF	2
C60~63	ECRF1H104ZF	0.1µF	4
C64, 65	ECCR1H221J	220pF	2
C66	ECKR1E473ZV	0.047µF	1
C67	ECEA1HK010	1µF, 50V	1
C73	ECRF1H104ZF	0.1µF	1

HP HEADPHONES CIRCUIT

Ref. No.	Part No.	Description	P/S
DIODE			
D1	SEL4214RLC05	LED, Power Indicator	1
COIL			
L1	QLQGT3T150SA	Coil	1

Ref. No.	Part No.	Description	P/S
JACKS			
JK1	SJJG100A	HEAD PHONE 1	1
JK2	SJJG100A	HEAD PHONE 2	1
RESISTORS			
R1~4	ERG1SJ680	68Ω, 1W, Flame-Ploof	4
CAPACITORS			
C1, 2	ECKR1E473ZV	0.047µF	2
C3	ECRF1H104ZF	0.1µF	1

CP CONTROL PANEL CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
IC1	M37471M2196S	16 bit Microcomputer	1
IC2, 3	HD74LS07P	Hex Buffers	2
TRANSISTORS			
Q1~5	2SA830SB	Transistor	5
S Q6	2SA1015-GR	2SA933STRS (SUB. Part)	1
DIODES			
D1~4, 6~9, 11~22, 26~30	MA165	Diode	25
D105, 109~111, 115, 116, 120, 121, 125, 126, 136~152	LN282R	LED (Red)	27
DISPLAY			
LD50	LB603VF	Triple 8 Segments Display	1
OSCILLATOR			
X1	QSXG2F0400DA	4MHz Ceramic Oscillator	1
SWITCHES			
S1~4, 6~9, 11~22, 26~30	EVQ21507K	Push Switch	25
IC PROTECTOR			
IP1 ⚠	ICP-N10T104	IC Protector	1
VARIABLE RESISTOR			
VR1	QRVG25P01B53	5kΩ B, Main Volume	1
RESISTORS			
R2	ERDS2TJ101	100Ω	1
R3	ERDS2T0	0Ω, 1/4W	1
R4, 5	ERDS2TJ103	10kΩ	2
R6	ERDS2TJ471	470Ω	1
R7, 8	ERDS2TJ221	220Ω	2
R9	ERDS2TJ471	470Ω	1

	Ref. No.	Part No.	Description	P/S
	R10~14	ERDS2TJ103	10kΩ	5
	R15	ERDS2TJ152	1.5kΩ	1
	R16~26	ERDS2TJ101	100Ω	11
	R27~35	ERDS2TJ103	10kΩ	9
	R36	ERDS2TJ101	100Ω	1
	R38	ERDS2T0	0Ω, 1/4W	1
	CAPACITORS			
	C1	ECRF1H104ZF	0.1μF	1
	C3	ECEA0JKA470	47μF, 6.3V	1
	C4, 5	ECBA1H100J	10pF	2
	C6	ECBA1E223ZF	0.022μF	1
	C7	ECEA0JKA101	100μF, 6.3V	1
	C8, 11	ECRF1H104ZF	0.1μF	2

PKB PEDAL KEYBOARD CIRCUIT

	Ref. No.	Part No.	Description	P/S
	TRANSISTORS			
S	Q1, 2	2SC1815GR	Transistor	2
S	Q3	2SA1015-GR	2SA933STRS (SUB. Part)	1
	DIODE			
	D1	GP2S24BC	Photointerrupter	1
	SWITCHES			
	S1, 2	QSTGT001AA	Lever Switch	2
	VARIABLE RESISTOR			
○	VR1	EVND8AA03B52	500Ω	1
	RESISTORS			
	R1	ERDS2TJ181	180Ω	1
	R2	ERDS2TJ224	220kΩ	1
	R3	ERDS2TJ333	33kΩ	1
	R4	ERDS2TJ683	68kΩ	1
	R5	ERDS2TJ124	120kΩ	1
	R6	ERDS2TJ224	220kΩ	1
	R7	ERDS2TJ124	120kΩ	1
	R8~10	ERDS2TJ472	4.7kΩ	3
	R12	ERDS2TJ391	390Ω	1
	R13	ERTD2ZGK102	1kΩ	1
	R14	ERDS2TJ222	2.2kΩ	1
	CAPACITORS			
	C1, 2	ECRF1H104ZF	0.1μF	2
	C3	ECQB1H153JF	0.015μF	1

MKB1 MANUAL KEYBOARD 1 CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUITS			
	IC1	MSM7U042016	Gate Array	1
	IC2	ST93C46CB1	1M bit Programmed EEPROM	1
	DIODES			
	D1~88	MA165	Diode	88
	OSCILLATOR			
	X1	SVQGA20MX040	20MHz, Ceramic Oscillator	1
	RESISTORS			
	R1~3	ERDS2TJ472	4.7kΩ	3
	CAPACITORS			
	C1	ECRF1H104ZF	0.1μF	1
	C2	ECCW1H471J5	470pF	1
	C3, 4	ECCW1H220J5	22pF	2
	C5	ECKR1E473ZV	0.047μF	1
	C6, 7	ECCW1H101J5	100pF	2

MKB2 MANUAL KEYBOARD 2 CIRCUIT

	Ref. No.	Part No.	Description	P/S
	DIODES			
	D89~176	MA165	Diode	88
	COMPONENT COMBINATION			
	Z1	EXBPI8332JM	3.3kΩ × 8	1

■ WIRING PARTS

	Ref. No.	Part No.	Description	P/S
○	W1	QEUGS7H13CZ	Connector with Wire	1
○	W2	QEUGSCH13CZ	Connector with Wire	1
○	W3	QEXGVH04075B	Connector with Wire	1
○	W4	QEXGVH05060D	Connector with Wire	1
	W5	QEXGVH03105B	Connector with Wire	1
○	W6	QEXGST12020B	Connector with Wire	1
	W7	QEXGSS16065A	Connector with Wire	1
	W8	QEXGSS06075A	Connector with Wire	1
	W9	QJLG007AA	Pedal Cord	1

REPLACEMENT PARTS LIST......Cabinet and Chassis Parts

Notes:

1. The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retension period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
   After the end of this period, the assembly will no longer be available.
2. ○ mark are new parts.
   Cabinet Colour
   - SX-PX205......Black • SX-PX205M......Walnat
3. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
4. For part No. with area mark, check the area when placing an order.
5. The raw material indication for synthtic resin
   In order to facilitate classification of parts of synthetic resin manufacture and to promote the recycling of natural resources, a raw material symbol for such parts is indicated in the Ref. No./Material column.

SX-PX205 CABINET & CHASSIS PARTS

	Ref. No.	Part No.	Description	P/S
			SWITCH	
	S1 ⚠	ESB823V	Power Switch	1
			SPEAKERS	
	SP1, 2	EAS14PL93A	14cm, 6Ω	2
	SP3, 4	EAS65PH31A3	6.5cm, 8Ω	2
			TRANSFORMER	
	T1 ⚠	QTPG1M022A	Power Transformer, M MC XM	1
	T1 ⚠	QTPG1M025A	Power Transformer, EN EK EZ EW EF EA EH EP X XL XR XS XD XT XP	1
			POWER CORD & PLUG	
	PC1 ⚠	SJAG65	Power Cord, EN EZ EW EF EA EH EP X XS XT XP	1
	PC1 ⚠	QJAG013AA	Power Cord, M MC XM	1
	PC1 ⚠	QJAG014AA	Power Cord, XR XL	1
	PC1 ⚠	VJA0733	Power Cord, EK XD	1
	PC2 ⚠	SJP5213-1	Attachment Plug, X XT	1
			CABINET PARTS	
○	1	QMAG0164AA	Angle	1
○	2	QKQGH045AA	Speaker net	1
○	3	QGPG0101DA	Control Panel	1
○	4	QGPG0106AA	LED Panel	1
	5	SBNG7050A	Knob	1
	6	QMFG1107AA	Felt (Red)	1
○	7	QGUG1413BAK	Button	1
○	8	QGUG1408AAK	Button	1
○	9	QGUG1409AAK	Button	1
○	10	QGUG1411AAK	Button	1
○	11	QGUG1412BAK	Button	1
○	12	QGUG1410AAK	Button	1
○	13	QMCG004AA	Spacer	6
	14	QMFG9012AA	Sound Absorbing Material	2
○	15 PS	QKSGG016AA	Keyboard Cover Guide, Left	1
○	16 PS	QKSGG017AA	Keyboard Cover Guide, Right	1

SX-PX205M CABINET & CHASSIS PARTS

	Ref. No.	Part No.	Description	P/S
			SWITCH	
	S1 ⚠	ESB823V	Power Switch	1
			SPEAKERS	
	SP1, 2	EAS14PL93A	14cm, 6Ω	2
	SP3, 4	EAS65PH31A3	6.5cm, 8Ω	2
			TRANSFORMER	
	T1 ⚠	QTPG1M022A	Power Transformer, M MC XM	1
	T1 ⚠	QTPG1M025A	Power Transformer, EN EK EZ EW EF EA EH EP X XL XR XS XD XT XP	1
			POWER CORD & PLUG	
	PC1 ⚠	SJAG65	Power Cord, EN EZ EW EF EA EH EP X XS XT XP	1
	PC1 ⚠	QJAG013AA	Power Cord, M MC XM	1
	PC1 ⚠	QJAG014AA	Power Cord, XR XL	1
	PC1 ⚠	VJA0733	Power Cord, EK XD	1
	PC2 ⚠	SJP5213-1	Attachment Plug, X XT	1
			CABINET PARTS	
○	1	QMAG0164AA	Angle	1
○	2	QKQGH045AA	Speaker net	1
○	3	QGPG0101DA	Control Panel	1
○	4	QGPG0106AA	LED Panel	1
	5	SBNG7050A	Knob	1
	6	QMFG1107AA	Felt (Red)	1
○	7	QGUG1413BAK	Button	1
○	8	QGUG1408AAK	Button	1
○	9	QGUG1409AAK	Button	1
○	10	QGUG1411AAK	Button	1
○	11	QGUG1412BAK	Button	1
○	12	QGUG1410AAK	Button	1
○	13	QMCG004AA	Spacer	6
	14	QMFG9012AA	Sound Absorbing Material	2
○	15 PS	QKSGG016AA	Keyboard Cover Guide, Left	1
○	16 PS	QKSGG017AA	Keyboard Cover Guide, Right	1

SX-PX205

Ref. No.			Part No.	Description	P/S
	17		SGBG160B	Badge	1
○	18		QGAG1026AC	Music Stand	1
	19		SBLG7-2	Stay	1
○	20		QMFG1083AB	Felt	1
	21		SBHG5003-2	Hinge	2
○	22		QKQGA097AA	Top Cover Ass'y	1
○	22-1		QGKG0109AB	Ornament	1
○	23		QKQGF020AA	Keyboard Cover Ass'y	1
○	23-1		QGKG0122BA	Ornament	1
○	23-2		QMRG7031CC	Protector	1
○	23-3		QMRG7032CC	Protector	1
	23-4		QXQG007AA	Axletree	1
○	23-5		QMRG7069AA	Holder	2
	23-6		QWBG002AA	Holder	1
	23-7		SHGG1052A	Cushion	2
	24		QMBG009AA	Spring	3
	25		QMFG1133AA	Felt	3
	26		QMWG4002AA	Pedal Arm	3
	26-1		QMFG1134AA	Felt	3
	26-2		QMFG1135AA	Felt	3
	27		QKAG0011AA	Foot	1
	28	PS	SJS9231A	AC Inlet, EN EK EZ EW EF EA EH EP X XS XD XT XP	1
	28	PS	SJS9334A	AC Inlet, M MC XM XL XR	1
STAND					
○	30		QKQGB372AA	Left Plank Ass'y	1
	30-1		QKSGB006AA	Leg, Left	1
	30-2		SHRG2130B-K	Foot	2
○	31		QKQGB373AA	Right Plank Ass'y	1
	31-1		QKSGB007AA	Leg, Right	1
	31-2		SHRG2130B-K	Foot	2
	32		SHRG9620A	Cord Clamper	3
○	33		QKQGD074AA	Crossboard	1
	34		SHRG1230A	Cord Clamper	1
○	35		QKQGM064AA	Pedal Box Ass'y	1
	35-1		QGKG0113AA	Ornament	3
MANUAL KEYBOARD					
	70	PP	SHRG8390A	Cover, Power SW.	1
	71		QGUG1040AA	Button, Power Switch	1
	72	PS	QGPG0042AB	End Cover Panel, Left	1
	73	PS	QGPG0041BB	End Cover Panel Ass'y	1
	74		QMFG1104AA	Felt	2
	75	AS	QMWG1001AA	White Key (First Octave A Key)	1
	76	AS	QMWG1002AA	White Key (B Key)	8
	77	AS	QMWG1003AA	White Key (C Key)	7
	78	AS	QMWG1004AA	White Key (D Key)	7
	79	AS	QMWG1005AA	White Key (E Key)	7
	80	AS	QMWG1006AA	White Key (F Key)	7
	81	AS	QMWG1007AA	White Key (G Key)	7
	82	AS	QMWG1008AA	White Key (A Key)	7
	83	AS	QMWG1009AA	White Key (Top Octave C Key)	1
	84		QMWG2001AA	Black Key	36
	85		SUSG534A	Spring	88
	86		QMWG8019CA	Hammer (Black Key)	36
	87		QMWG8017DA	Hammer (White Key)	52
	88		SHGG9121A	Rubber Cap (Hammer)	88
	89	PA	QMWG8024BA	Key Guide	88
	90	ABS	QMWG8022AA	Fulcurum (4 pcs. on one)	1
	91	ABS	QMWG8021AA	Fulcurum (12 pcs. on one)	7
	92		SHRGA9080A	Sponge	2

SX-PX205M

Ref. No.			Part No.	Description	P/S
	17		SGBG160B	Badge	1
○	18		QGAG1026AD	Music Stand	1
	19		SBLG7	Stay	1
○	20		QMFG1083AA	Felt	1
	21		SBHG5003	Hinge	2
○	22		QKQGA097AB	Top Cover Ass'y	1
	22-1		QGKG0109AA	Ornament	1
○	23		QKQGF020AB	Keyboard Cover Ass'y	1
○	23-1		QGKG0122BB	Ornament	1
○	23-2		QMRG7031CC	Protector	1
○	23-3		QMRG7032CC	Protector	1
	23-4		QXQG007AA	Axletree	1
○	23-5		QMRG7069AA	Holder	2
	23-6		QWBG002AA	Holder	1
	23-7		SHGG1052A	Cushion	2
	24		QMBG009AA	Spring	3
	25		QMFG1133AA	Felt	3
	26		QMWG4002AA	Pedal Arm	3
	26-1		QMFG1134AA	Felt	3
	26-2		QMFG1135AA	Felt	3
	27		QKAG0011AA	Foot	1
	28	PS	SJS9231A	AC Inlet, EN EK EZ EW EF EA EH EP X XS XD XT XP	1
	28	PS	SJS9334A	AC Inlet, M MC XM XL XR	1
STAND					
○	30		QKQGB372AB	Left Plank Ass'y	1
	30-1		QKSGB006AB	Leg, Left	1
	30-2		SHRG2130B-K	Foot	2
○	31		QKQGB373AB	Right Plank Ass'y	1
	31-1		QKSGB007AB	Leg, Right	1
	31-2		SHRG2130B-K	Foot	2
	32		SHRG9620A	Cord Clamper	3
	33		QKQGD066AB	Crossboard	1
	34		SHRG1230A	Cord Clamper	1
○	35		QKQGM064AB	Pedal Box Ass'y	1
	35-1		QGKG0113AA	Ornament	3
MANUAL KEYBOARD					
	70	PP	SHRG8390A	Cover, Power SW.	1
	71		QGUG1040AA	Button, Power Switch	1
	72	PS	QGPG0042AB	End Cover Panel, Left	1
	73	PS	QGPG0041BB	End Cover Panel Ass'y	1
	74		QMFG1104AA	Felt	2
	75	AS	QMWG1001AA	White Key (First Octave A Key)	1
	76	AS	QMWG1002AA	White Key (B Key)	8
	77	AS	QMWG1003AA	White Key (C Key)	7
	78	AS	QMWG1004AA	White Key (D Key)	7
	79	AS	QMWG1005AA	White Key (E Key)	7
	80	AS	QMWG1006AA	White Key (F Key)	7
	81	AS	QMWG1007AA	White Key (G Key)	7
	82	AS	QMWG1008AA	White Key (A Key)	7
	83	AS	QMWG1009AA	White Key (Top Octave C Key)	1
	84		QMWG2001AA	Black Key	36
	85		SUSG534A	Spring	88
	86		QMWG8019CA	Hammer (Black Key)	36
	87		QMWG8017DA	Hammer (White Key)	52
	88		SHGG9121A	Rubber Cap (Hammer)	88
	89	PA	QMWG8024BA	Key Guide	88
	90	ABS	QMWG8022AA	Fulcurum (4 pcs. on one)	1
	91	ABS	QMWG8021AA	Fulcurum (12 pcs. on one)	7
	92		SHRGA9080A	Sponge	2

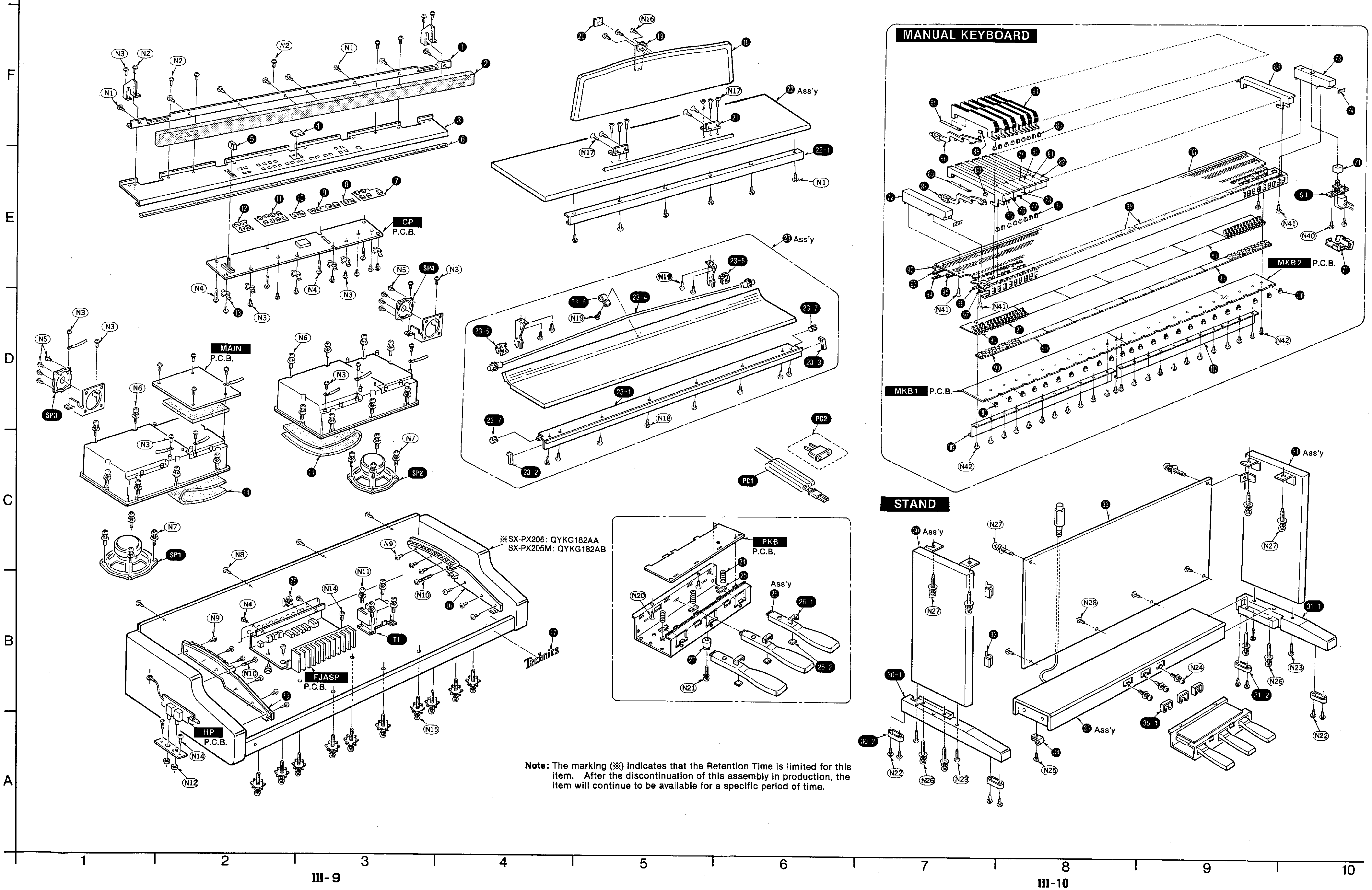
SX-PX205

Ref. No.		Part No.	Description	P/S
	93	QMFG1073AA	Felt	2
	94	SHSG3461A	Felt	1
	95	QMFG1101AA	Felt	2
	96	QMFG1061AA	Felt	2
	97	QMFG1060AA	Felt	2
	98	QMFG1086AA	Felt	2
	99	QMWG6006AA	Rubber Switch (8 pcs. on one)	11
	100	SHRG9751A	P.C.B. Holder	24
○	101	QMWG3003CA	Chassis	1
	102	SUWG3157A	Angle	2
SCREWS & WASHERS				
	N1	XTT4+12A	Screw	8
	N2	XTW3+10JFZ	Screw	7
	N3	XTW3+10Q	Screw	9
	N4	XTW3+20TFZ	Screw	4
	N5	XTW3+8J	Screw	8
	N6	XYN3+F16	Screw with Washer	16
	N7	XYN4+F25	Screw with Washer	8
	N8	XTT4+30AFZ	Screw	4
	N9	XTB35+16A	Screw	12
	N10	XTN4+50AFZ	Screw	2
	N11	XYN4+F16	Screw with Washer	4
	N12	XNS12FZ	Nut	2
	N13	SNEG2660A	Screw	1
	N14	XTB35+12A	Screw	2
	N15	QHDG021AA	Screw with Washer	10
	N16	XTB3+10AFZ	Screw	3
	N17	XTS3+10AFZ	Screw	10
	N18	XTB35+12AFZ	Screw	8
	N19	XTB4+10B	Screw	5
	N20	XTT4+16A	Screw	2
	N21	XTN4+16F	Screw with Washer	1
	N22	XTB4+16A	Screw	8
	N23	XTT4+25AFZ	Screw	4
	N24	XYN4+F16FZ	Screw with Washer	3
	N25	XTB35+14A	Screw	1
	N26	XYN6+F40	Screw with Washer	4
	N27	QHDG016AB	Screw with Washer	6
○	N28	XTT5+20AFZ	Screw	4
	N40	XTV3+10C	Screw	4
	N41	XTB4+12A	Screw	4
	N42	XTW3+10T	Screw	14

SX-PX205M

Ref. No.		Part No.	Description	P/S
	93	QMFG1073AA	Felt	2
	94	SHSG3461A	Felt	1
	95	QMFG1101AA	Felt	2
	96	QMFG1061AA	Felt	2
	97	QMFG1060AA	Felt	2
	98	QMFG1086AA	Felt	2
	99	QMWG6006AA	Rubber Switch (8 pcs. on one)	11
	100	SHRG9751A	P.C.B. Holder	24
○	101	QMWG3003CA	Chassis	1
	102	SUWG3157A	Angle	2
SCREWS & WASHERS				
	N1	XTT4+12A	Screw	8
	N2	XTW3+10JFZ	Screw	7
	N3	XTW3+10Q	Screw	9
	N4	XTW3+20TFZ	Screw	4
	N5	XTW3+8J	Screw	8
	N6	XYN3+F16	Screw with Washer	16
	N7	XYN4+F25	Screw with Washer	8
	N8	XTT4+30AFVC	Screw	4
	N9	XTB35+16A	Screw	12
	N10	XTN4+50AFZ	Screw	2
	N11	XYN4+F16	Screw with Washer	4
	N12	XNS12FZ	Nut	2
	N13	SNEG2660A	Screw	1
	N14	XTB35+12A	Screw	2
	N15	QHDG021AA	Screw with Washer	10
	N16	XTB3+10AFVC	Screw	3
	N17	XTS3+10AFVC	Screw	10
	N18	XTB35+12AFZ	Screw	8
	N19	XTB4+10B	Screw	5
	N20	XTT4+16A	Screw	2
	N21	XTN4+16F	Screw with Washer	1
	N22	XTB4+16A	Screw	8
	N23	XTT4+25AFZ	Screw	4
	N24	XYN4+F16FZ	Screw with Washer	3
	N25	XTB35+14A	Screw	1
	N26	XYN6+F40	Screw with Washer	4
	N27	QHDG016AA	Screw with Washer	6
	N28	XTT5+20AZTC	Screw	4
	N40	XTV3+10C	Screw	4
	N41	XTB4+12A	Screw	4
	N42	XTW3+10T	Screw	14

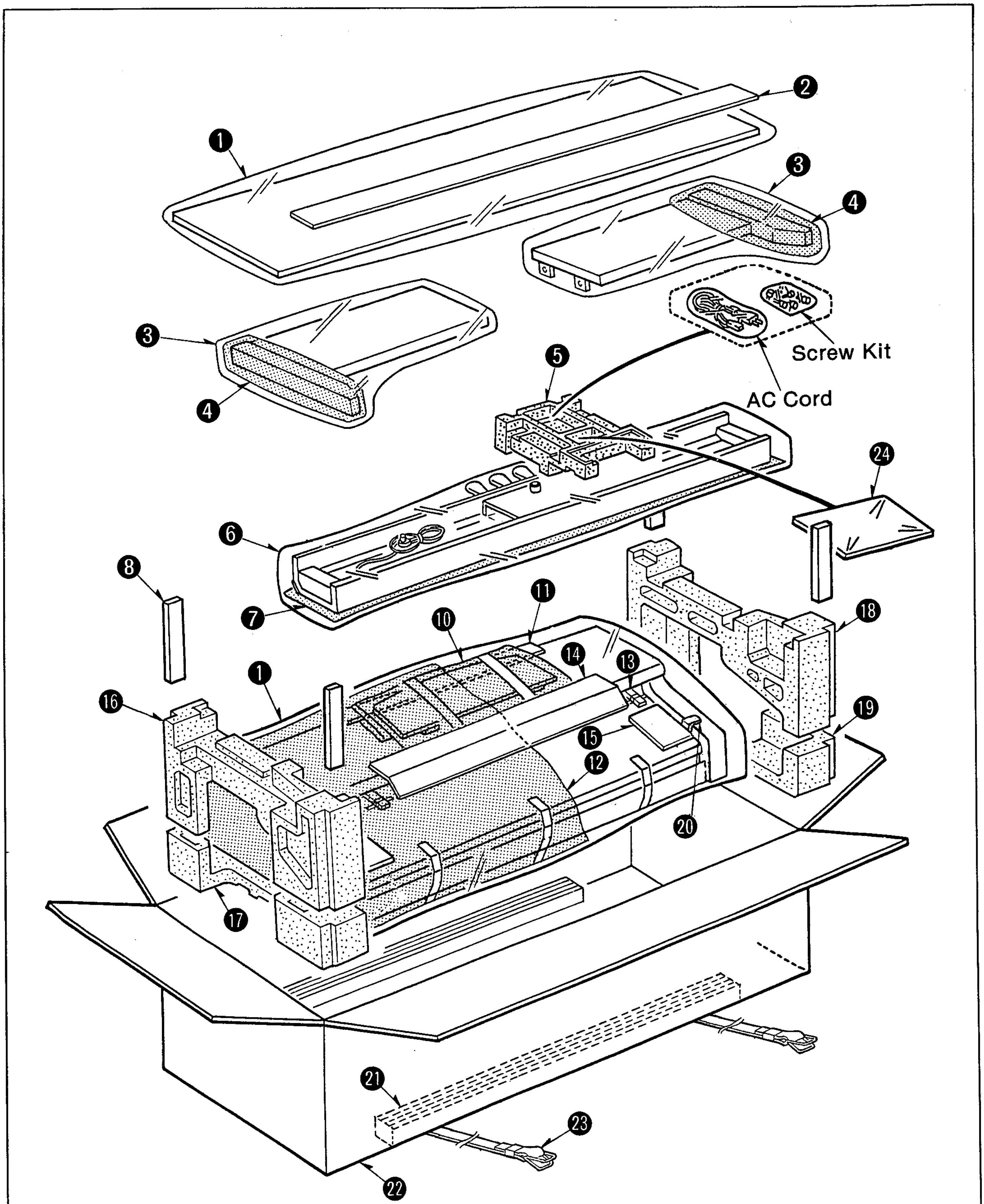
CABINET PARTS LOCATION


MANUAL KEYBOARD
STAND
CP P.C.B.
MAIN P.C.B.
MKB2 P.C.B.
MKB1 P.C.B.
PKB P.C.B.
FJASP P.C.B.
HP P.C.B.
SP1
SP2
SP3
SP4
T1
S1
PC1
PC2
22 Ass'y
23 Ass'y
30 Ass'y
31 Ass'y
35 Ass'y
Ass'y
Technics
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

※SX-PX205: QYKG182AA
SX-PX205M: QYKG182AB

Note: The marking (※) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time.

PACKING


❶
❷
❸
❹
❸
❹
Screw Kit
AC Cord
❺
㉔
❻
❽
⓫
❼
❿
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